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THE
DIAGNOSIS AND TREATMENT
OF
DISEASES OF THE RECTUM

BY

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ETC. ETC.



EDITED AND REVISED

WITH MUCH ADDITIONAL NEW MATTER AND NUMEROUS DIAGRAMMS

BY

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FIFTH EDITION



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PREFACE

TO

THE FIFTH EDITION.

It is now more than six years since this book was last published, and I think the time has come for a new edition. Press of daily work having prevented me from undertaking this, I have handed over the matter to my son, Mr. Herbert William Allingham, being thoroughly convinced he is especially well fitted for the task.

He has not only assisted me in my practice for more than seven years, but has over and again performed all the operations pertaining to rectal surgery.

My son has written several entirely new chapters; amongst them may be mentioned those on 'Incontinence of Fæces,' 'Excision of the Rectum,' and 'Inguinal and Lumbar Colotomy.' He has also re-arranged the book and added considerably to every part of it.

I wish it to be clearly understood that the essentially practical character of the book has in no way been departed from, anatomical and pathological questions only being considered when important in diagnosis or treatment. In order to facilitate the comprehension of the various operations, my son has made numerous fresh diagrams, which I believe will add greatly to the value of the work as an endeavour to teach.

WILLIAM ALLINGHAM.

25 GROSVENOR STREET, GROSVENOR SQUARE, W.
July, 1888.

5-25



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DISEASES OF THE RECTUM.

CHAPTER I.

INTRODUCTORY.

RECTAL DISEASES are among the most common that affect civilised humanity. They are of rare occurrence in barbarous countries. From information obtained when travelling in South Africa, I have reason to believe that the natives of that part of the world very seldom suffer from these affections, but some of my medical friends practising in India, and also in China, have informed me that the natives of those countries are not exempt, and that severe cases of various kinds of rectal disease are not uncommon. The native doctors treat bleeding piles by thrusting a red-hot skewer into the centre of each tumour. It is curious that a somewhat similar plan has been advocated by a London surgeon. Improper food and alcohol, sedentary indoor occupations, and defects in clothing, have much influence in the causation of these maladies, which, though not actually dangerous to life, certainly give rise to a vast amount of suffering, by which I mean not only pain, but also the distress arising from inability to work for daily bread. Both laborious and sedentary occupations are often rendered almost unendurable.

Common-
ness of
rectal
diseases

Some of
their
causes

It is true that the majority of these affections are very amenable to proper treatment; the amount of benefit that can be conferred by a well-skilled surgeon is really remarkable, but there is the opposite proposition to be considered. When diseases of the rectum are neglected, or when the

surgeon prescribes confection of senna and gall-ointment in every case, cures do not frequently result.

Importance
of thorough
examina-
tion

An accurate diagnosis in rectal diseases is all-important, and to prescribe for patients suffering from these maladies, without examining them both ocularly and digitally, is not only false delicacy, but radically wrong, and likely to bring the treatment of these diseases into contempt.

It still constantly occurs to me to see patients who have been for a long time under treatment by qualified practitioners, and for whom medicine and ointment have been plentifully prescribed, yet no digital examination has been made; perhaps only a look has been vouchsafed, and the disease diagnosed and treated as piles, whereas fistula, or ulceration, or even malignant disease has been present.

Some forms of rectal disease are much more common than others, notably fistula and piles. The popular mind seems, indeed, to recognise the existence of only these two diseases of the rectum, for all affections of this part are generally classed by the public under one or other of these heads. The following is a table showing the relative proportions found in 4,000 cases taken from my own practice at St. Mark's Hospital.

Table of
cases

*Analysis of 4,000 consecutive cases observed by Mr. Allingham,
in the out-patients' department of St. Mark's Hospital.*

Fistula	1208
Abscess, 196 (of these 151 became fistulæ, the rest probably were cured)	45
Hæmorrhoids, internal	863
„ external	102
Fissure or painful ulcer	446
Syphilitic diseases of the anus and rectum	348
Ulceration (neither malignant nor syphilitic)	190
Constipation	185
Pruritus ani	180
Stricture of the rectum (with or without ulcera- tion)	178
Cancer of the rectum	105
Procidentia	53
Polypus without fissure	16
Hæmorrhage (cause not ascertained)	15
Impaction of fæces	14

Neuralgia	12
Dysentery	12
Spasmodic contraction of the sphincter (no fissure)	8
Proctitis	7
Foreign bodies in the rectum	5
Necrosis of bone (sacrum, and tuberosity of the ischium)	4
Rodent ulcer	2
Vicarious menstruation from the rectum	2

 4000

Of these cases of fistula there were 172 that presented more or less marked symptoms of affection of the lungs—viz. hæmoptysis, frequent cough, or want of resonance in some part of the chest.

Some of my critics have thought the above table misleading, and that hæmorrhoids are more common than fistulæ. I do not say that this may not be the case if we take into consideration the middle and upper classes as well as the labouring population, whose cases alone are included in my table. Slight cases of piles do not often present themselves at the hospital, for the labouring man or woman struggles on under an attack which would certainly bring the well-to-do to the surgeon. In my private practice I find I have treated a few more cases of hæmorrhoids than of fistula, but it must be observed that a large number of the former were of a very slight nature, or suffering only from external piles, and not requiring any, or more than trivial, operative interference for their cure.

CHAPTER II.

EXAMINATION OF PATIENTS.

THERE are certain questions which it is desirable to ask the patient when investigating a case of rectal disease, in order that nothing may be forgotten or overlooked.

It should be remembered that we have not done enough when we have discovered that a patient has a certain malady; it is our duty then to find out if any other disease coexists. Thus, I often see a correct diagnosis made, as far as regards piles, but at the same time, a fissure, or fistula, or ulceration, or even malignant disease of the bowel has escaped observation.

History

A patient naturally wishes to tell the history of his case, and this is good and reasonable provided that the sufferer keeps strictly to the malady about which he is consulting. This may be soon found out, and if the relater be brief and to the point, the history may be of great value in assisting in the diagnosis, but should he wander from the subject I think it better to proceed at once to the following questions, which I always ask:—Is there any pain? If so, of what character? Where is it? at the verge of the anus, or up the bowel? Let the patient describe it—leading questions should be avoided. Does the pain exist always, or is it intermittent or paroxysmal? Is the pain set up or increased by defæcation? Does it come on as the bowels are acting, or does it follow immediately or some time after the action? How long does the pain last? does it pass away entirely, only to recur on again going to stool? Does anything protrude on the bowels acting, or on making exertion? If so, does it bleed? Is the blood mixed with mucus? Is it profuse or does it only streak the motion?

Questions
as to local
symptoms

Is it constant or occasional? Does the protruding part go back spontaneously, or has the patient to return it?

Is there any discharge? if so, what is its nature? is it of offensive odour? Is the patient constipated, or does he suffer from diarrhœa? If he is afflicted by diarrhœa how frequently does he go to stool? is the diarrhœa more frequent in the morning when rising, or during the day? Is there a sense of relief when the contents of the bowels are evacuated? Is there much straining? what are the results of this? Has the patient incontinence of wind or fæces? What is the character of the fæcal evacuation, as to size, form, &c.?

Having asked the local symptoms, a few questions as to the general condition of the patient, or as to any hereditary complaint, may be instructive. Is there any hereditary tendency to rectal disease? Does the patient cough, or is there any proclivity to chest affections? Has he had syphilis? Ascertain the state of the liver; and should an operation be in view never fail to examine the urine; any advanced disease of the kidneys will in all probability render an operation inadmissible.

Questions
as to
general
condition

But it should be remembered that a little sugar or albumen in the water should not negative an operation, for these conditions may be set on foot by the rectal disease the patient is suffering from. For example, should it be piles that are frequently bleeding. This loss of blood may give rise to changes in the kidneys, and these latter be greatly benefited by prompt operative procedure. It not uncommonly occurs to me to see patients who have been warned by medical practitioners on no account to have these bleeding piles removed, because they are in such a bad condition of health; but have been advised to wait until their strength improved. Such advice, I need hardly say, is unwarrantable, for the only treatment that can do good is to stop the hæmorrhage by removing the piles; to wait, simply makes the operation more dangerous when the sufferer at last submits, or tends to assist him on his downward course—perhaps even to the grave. This is a most important point, and although I wish to warn my readers

Importance
as to state
of urine

against operating upon patients with grave functional disease, yet I would also impress upon them the necessity of prompt treatment in suitable cases. No one would hesitate for one moment to amputate a limb in which the joint was destroyed by suppuration—lardaceous kidneys a probable result—and the patient fast sinking. We know that after such a source of irritation and drain has been removed, the sufferer usually at once begins to recover. The same rules as in general surgery should be applied to rectal cases, the *fons et origo mali* dried up, and the patient saved.

At the present day much is ascribed to gout, and it is well to bear in mind that a gouty person suddenly confined to bed is liable to get an attack which may, at all events unpleasantly, complicate the case. Lastly, inquire into habits, especially with reference to the consumption of alcoholic drinks. I am by no means one of those who think a moderate indulgence in beer or light wine damaging to the hard-worked man, but a patient saturated with alcohol is the worst subject a surgeon can have to deal with. In such a case I always insist on four weeks' total abstinence, and at the same time the patient should be subjected to preparatory treatment before anything in the way of operation is attempted.

Women

In women, inquire into the condition of the uterus, and if any suspicion is aroused make such investigation as will satisfy yourself.

Bladder

Always inquire into the state of the bladder, for it is not uncommon for stone, cystitis, prostatitis, or urethral stricture to give rise to *rectal* symptoms, which may be the most prominent, leaving the patient to imagine that his troubles are in the rectum, while all the time it is his urinary apparatus that is at fault.

Position for
examina-
tion

When your verbal interrogations are concluded, make your examination. There are various postures and methods in which this examination can be conducted. Some surgeons prefer the patient to kneel on a chair and lean over the back, others to kneel on a sofa, the head being lower than the buttocks, others the lithotomy position, but on the whole, I think, the most comfortable and

delicate position for the patient, and that most generally convenient for the surgeon, is to lie on the right side, the face and chest turned downwards towards the couch, the right arm behind the back, and the knees drawn up to the abdomen. This places the buttocks in an oblique position, and enables the surgeon to obtain a good view of the anus.

In special examinations to discover growths or strictures, I often direct the patient to stand up and bear down; in this manner the diseased parts will be brought nearer to the anus, and so enable you to reach nearly a couple of inches higher than you can when the patient is lying in the usual position, even if he strain down.

Great gentleness is highly desirable when examining a patient. He will, then, be less nervous; the anus will not be forcibly contracted, and will allow of a more thorough inspection than would be the case if he were handled roughly.

To commence. Externally, what is to be seen? Note any discoloration, the condition of the anus, patulous, contracted, or nipple-shaped. Look for tumours, ulceration, or fistulous orifices; feel around outside the anus with the fore-finger for induration. If there be any, where is it situated? Is it tender, hot, or fluctuating? If there are any opening or openings, does matter exude on gentle pressure? Can a probe be passed into them; if so, in what direction? Next press on the very verge of the anus, for a painful spot may be found, perhaps indicating the position of a fissure; now, with the hands placed upon the buttocks and the fingers quite close to the anus, firmly separate the former, at the same time telling the patient to bear down; such a procedure everts the anus, and so exposes to view the orifice and the mucous membrane for half an inch up the bowel. By this means one may discover a fissure, piles, or polypoid growths. Finally examine the interior of the bowel with the finger, which should be well anointed, and the patient told to bear down while it is being inserted. By bearing down, the sphincters are relaxed and the entrance of the finger effected without pain. Never neglect this. Much information—to the

Examina-
tion exter-
nally
Ocular and
digital

Internal ex-
amination
with
finger

initiated generally all that is needed—is to be obtained by passing the instructed and practised finger into the rectum; internal fistulous orifices, polypi, minute ulcerations, fissures, &c., can all be easily detected.

At first the finger should be passed just into the entrance of the anus, the tightness and breadth of the sphincters observed, and a careful examination made in the space between the internal and external sphincter, as this is the most common position for openings of fistulæ, ulcers, &c. These, however, may be passed by if the finger is at once inserted high up the bowel, as is so frequently done by the unskilled in these matters. The finger should now be passed higher, the prostate examined, and the upper parts of the rectum thoroughly explored. If a tumour can be felt, try if it can be indented by the finger; scratch slightly with the nail, to detect what matter comes away in it, for impacted fæces may give rise to symptoms of cancer, and the fact of being able to indent the mass or remove a small portion of it with the finger, may settle the diagnosis and frequently prevent the surgeon from arriving at an erroneous conclusion; also observe whether the discharge upon the finger be blood, pus, or mucus.

In examining a patient I generally use the right forefinger for the front wall of the rectum, but prefer the forefinger of the left hand for the posterior aspect of the gut. By so doing the pulp of the finger can with ease be swept over all the mucous surface.

All this may be done without previously giving the patient an enema, but should, upon insertion of the finger, the rectum be found filled with fæces and the diagnosis obscured, an enema is imperative. By its use growths may be made to protrude and the upper part of the bowel investigated.

With
speculum

Although personally I very seldom use a speculum in diagnosis, in some cases it is a valuable aid. I have had many varieties of that instrument constructed, to be used with or without artificial light; but for ordinary use the plated metal speculum employed at St. Mark's Hospital is, in my opinion, the best. It is open up one

side and at both ends, and has a well-fitting wooden plug; the whole is so shaped as to resemble, as much as possible, a forefinger. It is made by most instrument-makers—Ferguson, Weiss, Krohne, and others. Some surgeons prefer the bi-valve speculum, and I like it also; its only drawbacks are some difficulty of introduction, and the risk of injuring the mucous membrane during withdrawal.

When you desire to explore the rectum high up you may, with advantage, use a long metal tube with the interior ‘nickelled,’ one end being trumpet-shaped and large. The

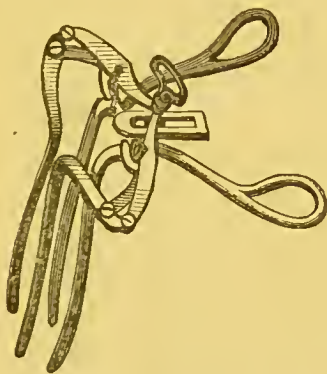


FIG. 1.—MR. ALLINGHAM'S FOUR-BLADED SPECULUM.

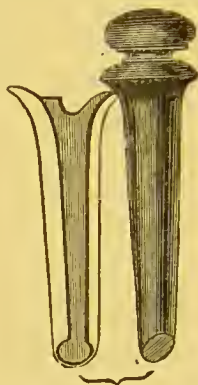


FIG. 2.—SPECULUM ANI.

smaller end may be about three-quarters of an inch in diameter, and it is very easily introduced into the bowel by using as the plug a small india-rubber bag, which you can inflate with air by means of a syringe. Useful as the above is, to make a thorough examination of the rectum for the purpose of diagnosing the existence of ulcerations, malignant or other growths, too high up the bowel to reach with the finger, it is best to place the patient under the influence of an anæsthetic, and in the prone position, with the hips well elevated upon hard pillows, so that the intestines will gravitate towards the diaphragm, and then gradually and gently by palpation to dilate the sphincters, taking four or five minutes in accomplishing this operation. When thoroughly done the rectum is opened to view, and, if one or two retractors are also used, nothing in the rectum can escape careful observation. I need scarcely say, before any thorough

Use of re-
tractors

examination is made, the bowel must be well cleared out by aperients and injections, and you must be provided with sponges mounted on holders to wipe away all discharge that would impede your view.

With
bougies

Should nothing be found in the lower bowel to account for the symptoms detailed by the patient, an examination of the highest part of the rectum and lower part of the sigmoid flexure may be effected by one of the following bougies (*see* fig. 3), with or without the employment of an anæsthetic.

I always first try the gum or the india-rubber bougie (figs. A and B); these failing to pass, the pewter one (C), should be used. It must be bent into the shape of a long S slightly cork-screwed. On account of its firmness it can with greater ease be manipulated beyond the promontory of the sacrum and enter the sigmoid flexure. By a practised hand, with the use of one of these bougies, a stricture can be discovered with the same facility as one can be detected in the urethra.

Examina-
tion under
ether

If a growth or ulcer be felt so high up in the bowel as to prevent a satisfactory ocular examination, put the patient under ether and use a vulsellum. I have thus been able to draw the upper part of the rectum right outside the anus, in fact have intussuscepted the upper into the lower part of the bowel, and have so obtained a good view of the diseased portion. Even when this has been done, something more may be desir-

Introduc-
tion of
hand

able, and that is the introduction of the hand and arm into the intestine. In the year 1867, I first introduced my hand and arm into the bowel of a woman at St. Mark's Hospital, and found a malignant stricture in the sigmoid



FIG. 3.

flexure. From that time I have on many occasions repeated this manœuvre and have by this saved several lives. In one case, which I saw with the late Dr. Wilson Fox and Mr. Towne of Kingsland, I found and completely stretched a band of false membrane or peritoneum which was holding down the bowel as it crossed the brim of the pelvis; the obstruction was relieved and the patient recovered.

Up to the year 1873 I had never introduced the hand into the male rectum, believing that it was impossible that a *man's* hand could be passed through the comparatively unyielding narrow inlet to the male pelvis; but learning that the late Professor Simon of Heidelberg had accomplished this, I have frequently (my hand being small) followed his example without inflicting any injury. It is only the rectum that can be thus explored, for to attempt to pass the hand into the sigmoid flexure is practically an anatomical impossibility. At the juncture of the rectum and the sigmoid flexure there is a considerable contraction, and the passage of the hand beyond this results, as I have frequently observed in the dead body, in a rupture of the gut. When, however, the rectum is very capacious the hand may be introduced clenched, but with the first finger extended. In this way the finger may be pushed beyond the natural contraction, and so the lower part of the sigmoid flexure be reached.

I need scarcely say in this proceeding the utmost gentleness should be used, and that a small hand is absolutely necessary. Dr. Heslop, of Birmingham, relates in the 'Lancet,' May 11, 1872, two cases of death in women after passing the hand into the rectum, and, I think, justly infers that the operation was the cause of rupture of the bowel close to or above the stricture. I have myself seen death result from this procedure in a case where I believe no undue violence was employed. My opinion is that in this operation where a stricture exists it should not be *forcibly* or *widely* dilated, and that the dilatation should not be followed by copious enemata, which will unduly distend the weak part of the intestine and cause much straining; it is

better not even to give any purgative for at least forty-eight hours, and I think it wise to administer repeatedly small doses of opium.

Eversion
by fingers
in vagina

In examining the rectum in women, Dr. Horatio Storer, of Boston, U.S., has recommended eversion by the fingers passed into the vagina. This method is useful in women who have borne children, but not in the young and unmarried. Moreover, it is only the anterior wall of the rectum, and that not high up, that this method enables you to examine; by putting your fingers into the vagina you cannot bring down the posterior wall of the rectum, as I have assured myself on many occasions.

Importance
of anæsthetic
in
obscure
cases

Finally, I must impress upon my readers the importance of giving an anæsthetic, administering an enema, forcibly dilating the sphincters, and examining the abdomen, pressing deeply into the left iliac fossa, in all cases in which the symptoms are obscure and the diagnosis difficult.

CHAPTER III.

ABSCESS AND FISTULA IN ANO.

FISTULA is, at all events in hospital practice, the most common rectal disease affecting the adult. Out of 4,000 cases, taken consecutively and without selection at St. Mark's Hospital from the out-patient department, there were 1,057 persons suffering from fistula, and 196 from abscess, of which 151 subsequently became fistulæ, so that more than one-fourth of the whole cases treated were fistula. I have recently examined the records of the in-patients at St. Mark's Hospital during several years, and these show that two-thirds of those operated upon were cases of fistula. There is one source of obscurity in making deductions from statistics which deserves mention ; it is due to the fact that many patients suffer from more than one malady. It constantly happens that a fistula is found in connection with hæmorrhoids either as the substantive disease or as a complication. Again, a fissure or circular ulcer often has a sinus running from it, so that it may fairly be considered as the opening of an internal fistula, and the case called a fistula, or the sinus is not detected and the case is called ulcer or fissure, and so error creeps in.

Men are more subject to fistula than women.

This disease is most frequently met with during middle age, but it is by no means restricted to that period of life. I have operated upon an infant in arms and upon a man over eighty years of age.

The causes of fistula, or abscess ending in fistula, are many and various, and several causes may combine to produce the result.

These may be generally specified :—Injury to the anus,

Causes of
abscess and
fistula

exposure to wet or cold, and particularly sitting upon damp seats after exercise when the parts are hot and perspiring. I have traced many cases of rectal abscess to sitting on the outside of an omnibus after active exertion. Here I would observe that sudden and deep-seated suppuration is often found to occur after severe itching in the part, with only erythematous redness on the surface. It may result from the violent irritation caused by any of the forms of parasites which frequent the anus and its immediate neighbourhood. Abscess or fistula may also be caused by the laceration of the mucous membrane resulting from coactive motions and straining at stool. Foreign bodies, such as fish or rabbit-bones, which have been swallowed and have reached the anus in an undigested state, are not an uncommon cause of fistula; not only from the irritation and injury to the mucous membrane, but also from the septic influences which they exert. As a parallel may be instanced whitlow, which often follows from a scratch inflicted by the bones.

Other predisposing causes are thrombosed veins and suppurating piles. Abscesses and fistulæ may likewise supervene on fevers and certain depraved conditions of the blood such as frequently give rise to boils or carbuncles.

Lastly—a matter which should always be prominent in our minds—abscesses or fistulæ may proceed from a tubercular or strumous tendency, inherited or acquired.

Causes in
children

Fistula in *children* generally results from injury to the anal region or from worms, which should always be asked about and carefully sought for. In the case of worms medication which will remove them is likely to bring about a cure.

Place of
commence-
ment of
abscess and
fistula

Fistula, in the majority of cases, commences by the formation of an abscess immediately beneath the skin just outside the anus, starting primarily in the cellular tissue, or in the hair or sebaceous follicles. It is generally said to begin in the ischio-rectal fossæ, but I am certain this is a rare, though occasional, situation. It may also begin as an abscess in the submucous connective tissue of the rectum, and then burst into the bowel. This is its ordinary termination, but it may insidiously undermine the rectum in

any direction, and I am convinced that the most serious forms of fistula not uncommonly originate in this manner. Abscess, and then fistula, may commence by ulceration of the mucous membrane of the bowel, as seen in phthisical patients; when they arise in this way, fæcal matter accumulates in the parts around, and so a sinus is formed, which opens eventually outside the anus. Lastly, abscesses may originate in the superior pelvi-rectal spaces, and burst, so forming sinuses extending in any direction.

Rectal abscesses may be classed, according to their frequency, as acute, chronic, or gangrenous. The acute will be attended with the usual symptoms of an acute abscess in any other part, only the constitutional symptoms are generally more severe. When they commence in the ischio-rectal or superior pelvi-rectal fossæ, the constitutional disturbances are very great, and predominate over the local ones, which, in the early stages, are only indicated by tenderness and pain, followed later on by redness of the skin and œdema. It is in these latter varieties that very prompt treatment is necessary to obviate grave after-results.

Kinds of
rectal
abscess
Acute

The chronic may be months in forming, and be perfectly painless, even on manipulation, the only evidence of an abscess being a fluctuating swelling with thinning and discoloration of the skin. Again, its presence may be only shown by a flat, boggy, crepitating enlargement which can be felt by the side of the anus. This form of abscess is the most dangerous, as it is apt to be neglected; it takes some time to open spontaneously, and so burrows up by the side of the rectum to some distance, as well as under the skin towards the perineum or buttock, or both.

Chronic

All acute and chronic abscesses, if left, eventually open spontaneously, and the patient then fancies his trouble is over. The cavity of these abscesses seldom entirely closes, but sooner or later contracts, leaving a weeping sinus with a pouting, papillary aperture, which may be situated near to or far from the anus, and thus a fistula is formed.

Following fevers, or in patients greatly broken down in health, a very serious condition may arise, viz. acute

Gangre-
nous

gangrenous cellulitis around the anus and rectum, which is accompanied by low constitutional symptoms, and ends in extensive death of the tissues in those parts. Fortunately these cases are rare, but when seen they call for free incisions to allow of the escape of the sloughing cellular tissue and putrefying pus.

Importance
of early and
active
treatment

It is not often that one sees a rectal abscess very early; either the patient is not aware of the importance of attending to the early symptoms, or he temporises, using fomentations or poultices; or even, when seen by a surgeon, the proper treatment is not always promptly adopted. I have seen large abscesses painted with iodine, under the idea of obtaining absorption. It is well to remember that as soon as pus is formed, there is only one method of treatment to be for a moment entertained, and that is *incision*. It is certainly less damaging to cut into an inflamed swelling near the anus where no pus is, than to let a day pass over after suppuration has commenced; the longer the abscess is left unopened the greater the danger of the formation of lateral sinuses. Before any pus exists, rest, warm fomentations and leeches may cut short the attack, but such a result is very rare.

Method of
opening
rectal
abscess

When opening an acute abscess—which should be freely done, if you find lateral sinuses—it is better to leave them alone, and wait until the active attack has subsided, before attempting to lay them open. To operate upon them at that time would be of little avail, as more burrowing generally takes place. Very small abscesses can be well and easily opened in the following way:—Place the patient on the side on which the swelling exists; pass the forefinger of the left hand, well anointed, into the bowel; then place the thumb of the same hand below the swelling on the skin. Now make outward pressure with your finger in the bowel, and you render the swelling quite tense and defined, it being, in fact, taken between your finger and thumb. A straight bistoury is then to be gently pushed into the abscess, being held perpendicular to it; then, with a sawing motion, open the abscess freely. Such a method causes very much less pain than when a knife is rapidly stabbed

into the inflamed and tender swelling. The incision should be made at right angles to the anus, beginning near the anal orifice and cutting outwards. If the part be thoroughly frozen by the ether-spray, this operation, otherwise painful, may be rendered almost, if not quite, painless; but the objection to the spray is the intense suffering the patient experiences when the frozen parts are recovering, similar to the pain felt after a frostbite. Use of
ether-
spray

The method of operating above described is by no means suitable to a severe or deep-seated abscess; I can, however, safely say that if a patient suffering from this latter form will allow me to act in my own way, I can almost guarantee that no fistula shall result. The following is the method to be adopted. The patient must take an anæsthetic, as the operation is very painful. I first lay the abscess, outside the anus, open from end to end, and from behind forwards, *i.e.* in the direction from the coccyx to the perinæum. I then introduce my forefinger into the abscess and break down any secondary cavities or loculi, carrying my finger up the side of the rectum as far as the abscess goes, probably under the sphincter muscles, so that only one large sac remains; should there be burrowing outwards, I make an incision into the buttock deeply, at right angles to the first. But I must here remark, that in very severe abscesses or gangrene one should not cut away the sloughs, but let them separate. Removing them may cause troublesome hæmorrhage, as the larger vessels are kept open by the indurated and inflamed tissues. Moreover, if on removing sloughs the surrounding inflamed tissues be cut into, the lymphatics, which are blocked at the sloughed portions, may be opened. Absorption of the putrid matter takes place, and pyæmia may result. After the incisions I syringe out the cavity and carefully fill it with wool soaked in carbolised oil, one part in twenty; this I leave in for a day or two, then take it out and examine the cavity, and dress again in the same manner, taking great care that during the healing process the cavity fills up from the bottom. If there is any premature contraction of the external orifice, a drainage-tube may be used with advantage.

In a remarkably short time the patient recovers; the sphincters have not been divided, and he therefore escapes the risk of incontinence of fæces or flatus, which sometimes occurs when both the sphincters are deeply incised. I could cite numbers of cases of very unfavourable aspect, and in old persons, that have done quite well, treated as I have described.

After-treatment

To give your patient the best possible chance of recovery, you must keep him on the sofa, if not in bed. I always think it advisable to clear out the bowels once, and then confine them by an astringent dose of opium for three days; you thus secure entire rest to the parts, and give every opportunity for the cavity of the abscess to fill up. After a time the carbolised oil should be discarded, and lotions used containing nitrate of silver, copper, zinc, or friar's balsam, which last does great good. I find boracic acid ointment, not strong, or a solution of thymol advantageous; you must be prepared to ring the changes between these and many other applications. Always remember *never to stuff* an abscess, but put in a little wool very lightly, taking care to carry it to the bottom of the abscess-cavity.

Transition of abscess into fistula

The questions naturally arise, Why do abscesses about the anus usually fail to close up? Why do they form sinuses? There are doubtless several reasons, but the following may be sufficient—the mobility of the parts, caused by action of the bowels and movement of the sphincter muscles, almost at every breath, and the presence of much loose areolar tissue and fat. The vessels also near the rectum are not well supported, and the veins have no valves; there is therefore tendency to stasis, and this is inimical to rapid granulation. We know that abscesses are always apt to degenerate into sinuses when situated in very movable places and in any lax areolar tissue, as in the axilla, neck, or groin.

If the sinus extending from an abscess is recent, it may be lined with granulations and the pus is healthy.

After an abscess has long existed the discharge loses its purulent character; it becomes watery; the abscess has

gradually contracted, and now only a sinus, very often formed of dense tissue, remains. If this sinus be laid open, you may observe that its interior resembles in appearance the inner coat of an artery, so glistening and smooth has it become. When this is the case, from its rigidity and loss of vitality, healing cannot take place unless a healthier condition is procured by destroying the sinus by caustics or by laying it open.

If now a probe be passed very tenderly into this sinus, allowing it to follow its own course, and after this is done the finger be placed in the rectum, you will probably find that the probe has traversed the sinus, passed through an internal opening, and can be felt in the bowel. In this case you would have a typical, simple, complete fistula; and this is by far the most common variety, very few fistulæ that have existed for more than three months being without an internal opening.

Method of
examining
sinuses

When the fistula is complete, wind may pass through it, and also fæces if the bowels are relaxed; as a rule, however, this symptom does not occur, in consequence of the smallness of the internal aperture, its situation, or its valvular form. It follows that, though the passage of wind is a certain indication of a complete fistula, the absence of

Kinds of
fistula
Complete

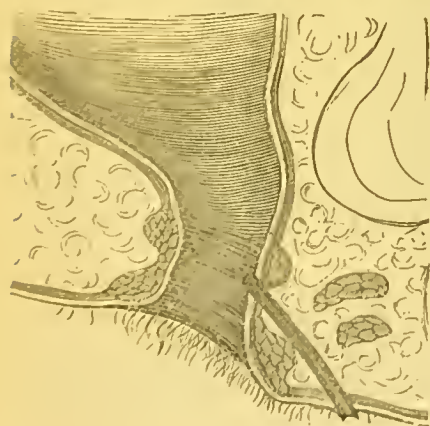


FIG. 4.

this symptom should not induce the belief that there is no internal opening.

These *complete* fistulæ may be classed under several heads, according to the way in which the sinuses run into the bowel, and according to the position of the internal opening.

The most common one (as shown in diagram 4) has its internal opening between the external and internal sphincters, and results from an abscess formed in the cellular tissue just outside the anus.



The ischio-rectal fistula (as shown in diagram 5) starts in the cellular tissue of that fossa, and generally bursts higher up in the bowel above the internal sphincter.

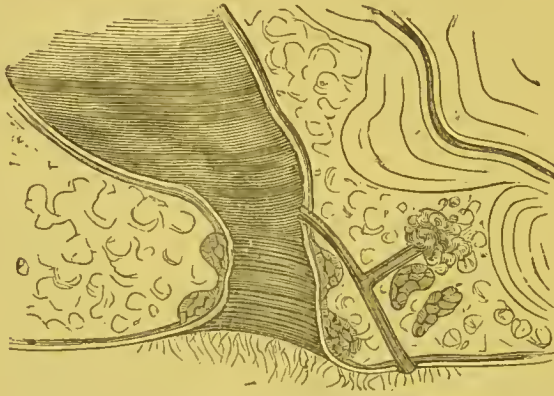


FIG. 5.

Again, a marginal abscess may burrow under the mucous membrane, entering the anus just within the external sphincter, and perhaps passing through a few of its fibres (see diagram 6).

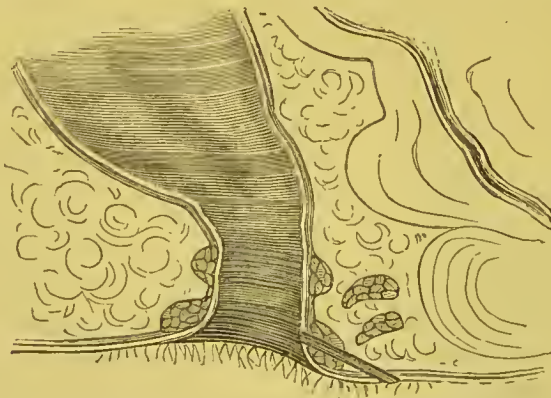


FIG. 6.

There is some variation in the shape and position of the orifice of this kind of fistula. The external opening may be small and little depressed, or be slightly elevated and teat-like in form. Again, it may be hardly perceptible, being hidden away beneath tags of skin, or may open between external piles and so be lost to view. The internal opening in like manner may vary in shape.

Besides this common form there are two other descrip-

tions of fistula, viz. the blind external fistula, and the blind internal fistula. In the blind external fistula there is an *external* opening, and it is therefore called an *external* fistula, but no *internal* opening, hence 'a BLIND *external*.' In the other variety there is an *internal* opening, consequently it is an *internal* fistula, and there is no *external* opening, therefore it must be called 'a BLIND *internal*' fistula.

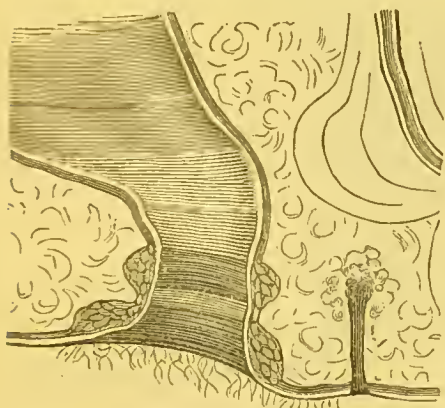


FIG. 7.

I have so often seen confusion in the use of these terms that I have been particular in describing them; and, considered in the way I have put it, I think there can be no misconception.

The blind external fistula may be represented by diagram 7.

Blind
external

It may be a simple track, or have a dilated upper extremity, the remains of the original abscess. As before, the orifice may vary in position or shape.

The blind internal fistula is figured in diagram 8. It is the most painful, though fortunately the rarer form.

Blind
internal

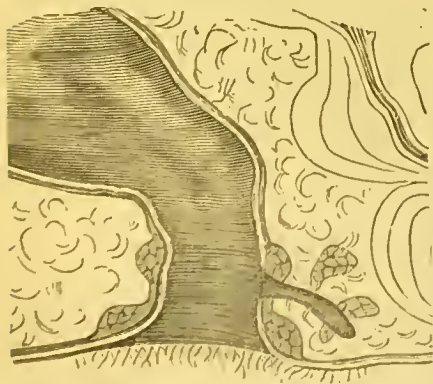


FIG. 8.

Its aperture may be seated anywhere in the rectum, but generally between the internal and external sphincters. The circumference of this opening is frequently as large as a threepenny-piece, its edges being sometimes indurated, at others undermined. The fæces, when liquid, pass into the sinus and create

great suffering—a burning pain, often lasting all day after the bowels have acted. Moreover, these fistulæ are fre-

quently severe, in consequence of the burrowing caused by the irritating matters which get into them.

This form of fistula results usually from some injury to, or ulceration of, the lining membrane of the rectum, or abscess in the connective tissue beneath the mucous membrane, and is most commonly found in subjects who have consumption, or who are predisposed to it.

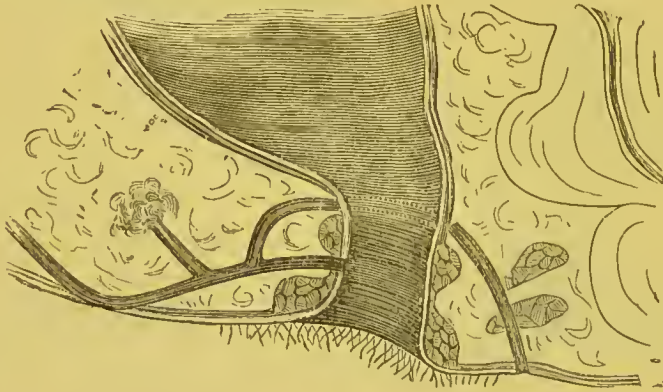


FIG. 9.

Besides the forms shown in the above diagrams any of these fistulæ may be complex.

Complex
variety

The complete fistula may have many sinuses, as in diagram 9, some running outwards and causing several openings far from or near to the anus, or running up the bowel under the mucous membrane, or even travelling round the



FIG. 10.

gut and opening in the other buttock, giving rise to the so-called horse-shoe fistula.

In the same way the blind external may be complicated as shown in diagram 10.

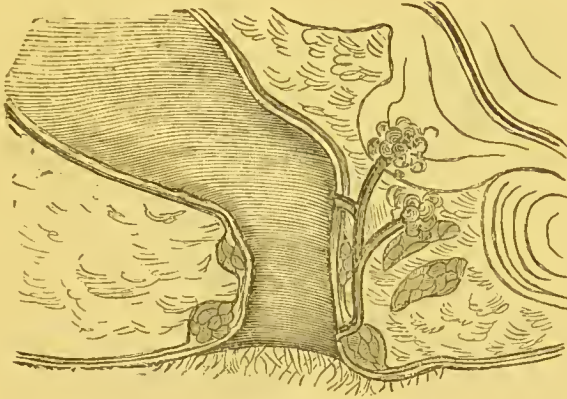


FIG. 11.

Diagram 11 represents the ramifications which may occur in the blind internal.

Now, these terms, 'complete,' 'blind external,' and 'blind internal,' are useful, but surgically they are of little moment. There is a very much more important division which affects the character of the fistula as regards its seriousness to the patient and also to the surgeon, viz. as

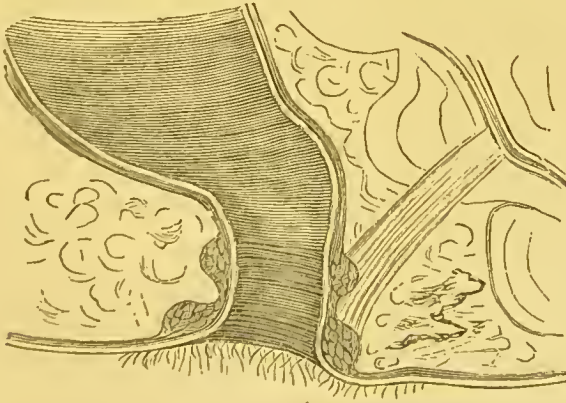


FIG. 12.

to whether the sinuses are low down in the rectum or in the surrounding tissues; or open high up, as a result of an abscess in the ischio-rectal fossa (diagram 12) or in the

superior pelvi-rectal space which is above the levator ani muscle (diagram 13).

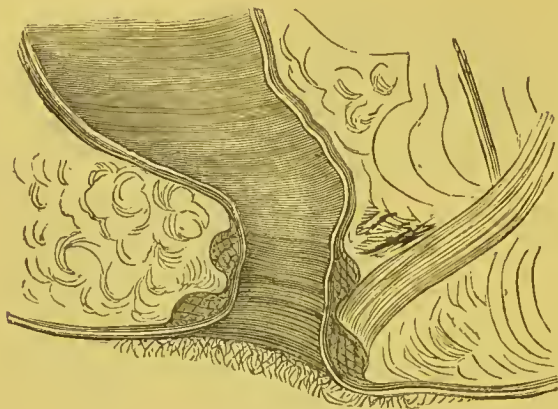


FIG. 13.

Examina-
tion for
fistula

We will now imagine that you have a patient with fistula before you. Proceed to examine him thus:—Place him upon a hard couch on the side upon which the disease is supposed to be situated, the buttocks being brought close to the edge of the couch, and the knees drawn up. Look at the anus and the surrounding parts *carefully*, to detect any visible malady. You may see the orifice of a sinus, or some discoloration of the skin may show you the site of the disease. Then feel gently all round the anus with the forefinger, and you will often, by the induration, detect the course and position of the sinus, which feels like a pipe beneath the skin. Having satisfied yourself in these respects, pass the probe into the external aperture; hold the probe with a very light hand and let it almost find its own way. If it does not pass easily, bend it and see then if it can be coaxed along the sinus. In many cases, as I have before said, it will pass right into the bowel; when the probe has been passed as far as it will go without using any force, introduce the forefinger of the left or right hand, whichever, according to the position of the patient, is most convenient, into the rectum; do not, as is often done, introduce your finger before the probe; if you do, you will excite contraction of the sphincter, and the sinus will be drawn up or contorted, and consequently the passage of the probe is

obstructed. When the finger is in the bowel examine carefully all around the anus and rectum for an internal opening. If any spot can be felt that may lead you to suspect such an opening, place your finger upon it and pass the probe towards the finger. Make sure that the fistula is a complete one by feeling the probe impinge upon your finger. There may not be an internal opening; if not, see how near the probe comes to the mucous membrane.

This is of great importance in deciding whether the fistula ought to be attacked at once, or if it may be safely allowed to remain for some time uncut, should the patient be unable to lay up immediately; and in answering the question as to the advisability of trying palliative treatment.

As to the necessity of palliative or operative treatment

A blind external fistula is the safest to leave; but, at the same time, in deciding the above questions one should remember to take into account the amount of induration of the tissues about the anus, for if this is extensive, burrowing will continue. Another important feature to be observed is the nature and quantity of the pus discharged. If it be laudable and profuse, an operation should not be delayed, for the fistula is active and burrowing. But should the pus be watery there is not such need for immediate action. In any case, however, one should not leave the fistula too long, for it may at any time resume an active state and commence to burrow.

Usually it may be said the longer a fistula is left the more does it burrow, and the more difficult is it of cure; therefore I think it unwise to tell a person to have nothing done as long as he is not suffering—advice which I frequently hear is given to patients.

Should, upon careful inspection, no *external* opening be found, but the patient describe the symptoms of a blind internal fistula, viz. great pain on defæcation and profuse discharge of pus, together with, or without, induration about the anus, an ulcer, which may be the opening of an internal fistula, must be sought for in the bowel. Thoroughly explore this with a probe, either straight or bent into the shape of a hook; for a sinus may be running out of this ulcer towards the skin or up under the mucous membrane.

If there be no sinus the sore is only an ulcer, and an attempt may be made to cure it by palliative measures. If, on the other hand, you do find a sinus, an operation is imperative to relieve pain and prevent further mischief; for the sinus being funnel-shaped, with the larger end of the funnel opening into the bowel, fæces readily pass into it, and inflammation, much pain, and extension of the disease will certainly ensue.

Position of
internal
aperture

In a fistula with an internal aperture it is usually situated just within the anus, in the depression which exists between the external and internal sphincters. I do not say that it is by any means invariably so placed, but I am sure that this is its common situation; and one reason why the opening is not felt when the finger is inserted is because the search for it is made too high up the bowel.

I think the reason the internal opening is situated so often in the position I have named, is this. The abscess forming, in most cases, just outside the anus, does not burrow deeply, but passes close under the external sphincter; it then is prevented from ascending higher up the bowel by the thick band of the *internal* sphincter, and consequently is turned inwards, and makes its way through the lax areolar tissue, in the space between the two muscles. When the abscess really commences in the ischio-rectal fossa, it burrows deeply, and then most usually passes above the internal sphincter, and opens, if at all, high up in the rectum.

Occasionally more than one internal opening exists, and I have now many times seen what the late Mr. Syme declared could not occur, viz. two internal openings in the same patient at the same time; at St. Mark's I have treated many cases in which there was an internal aperture at each side of the bowel.

It is all-important that this internal aperture be felt with the finger (so that in operating it may be included in your incision), for not unfrequently from the tortuous nature of the fistula the probe cannot readily be got through it; this is markedly the case in the horse-shoe form of fistula, which is not uncommon. The sinus here runs

round—generally dorsally—from one side of the anus to the other, so that the external and internal openings are placed on opposite sides of the bowel. This variety, if not properly diagnosed, is rarely cured by operation, the sinus being laid open on one side of the bowel, and left untouched on the other; this mistake may generally be avoided by a careful examination with the finger externally, as you can feel a hardness on *both* sides of the anus; the patient will also sometimes assist you by telling you that he has felt something like a ‘piece of wire’ on both sides of the bowel.

When you pass your finger into the bowel to search for the internal opening, never forget to carry it higher up, to see if the rectum be otherwise healthy; you may find stricture, ulceration, or malignant disease coexistent; without this precaution these conditions may be overlooked.

A fistula may be a very trivial matter indeed, which you can operate upon in the out-patients’ room, and send your patient home afterwards, or it may be a really serious affair, demanding extensive surgical interference. I have often seen a buttock so riddled with sinuses as to resemble a miniature rabbit-warren more than anything else.

Fistula may exist for years without causing much pain or inconvenience to the patient. I have met with many persons who have had rectal sinuses for ten years and upwards, and never had anything more done than the occasional passing of a probe when the external aperture got blocked up, and pain was caused by the formation and retention of matter.

When the tissues around the sinus become very dense there may be, for a long period, an arrest of burrowing, but an attack of inflammation set up at any time will cause a fresh abscess.

I am often anxiously asked by sufferers if a fistula can be cured without an operation, or, as they say, ‘the use of the knife.’ To this I reply that I have seen all kinds of simple fistula get well with, and even without, treatment, but these occurrences are quite exceptions to the rule, and should not be depended upon.

Palliative
treatment

Children

When fistula in children is the result of worms, which is frequently brought about by the irritation they set up, a cure may often be effected without the use of the knife by adopting the following plan of treatment. Give them every night a powder consisting of—

R Calomel	.	.	.	.	.	.	gr. j
Pulv. scammon. co.	.	.	.	.	.	.	gr. iv
Pulv. jalapæ co.	.	.	.	.	.	.	gr. iv—M.

Administer the following enema at bedtime :—

R Liq. ferri perchlor.	.	.	.	.	.	ʒj
Glycerine	.	.	.	.	.	ʒj
Inf. quassia	.	.	.	.	.	Oj—M.

and make the child take three of these lozenges during the day—

Troch. santonini	gr. ij
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It is very advisable at bedtime to tie up the child's hands in front of its body, so that it may not by scratching convey any of the ova from its anus to its mouth. This course of treatment should be continued for about one week. I have found this to be eminently satisfactory, though other means may be employed should it fail.

When the child is rid of the worms and the irritation they occasion, the fistula frequently heals. This, I think, arises from the greater vitality and reparative powers that children possess.

Adult

In the adult, if the fistula be simple and the patient be unwilling to submit to any operation, certain methods may fairly be tried. For the last few years I have been successful, on many occasions, in curing simple blind external, and even complete fistulæ, by means of carbolic acid and drainage-tubes. This mode of treatment, if carried out with great care and some perseverance, offers, in my opinion, the best chance for the patient. I find it is essential that the outer opening of the fistula should be much dilated before applying the acid or using tubes. The dilatation can be accomplished by keeping in a small portion of sea-tangle for a few days, or by a small sponge tent. When the opening is large enough I clean out the sinus well, and

then rapidly run down to the end of it a small piece of wool saturated in strong carbolic acid with 10 per cent. of water. I mount the wool upon a stiff piece of wire set in a handle and just roughened at the free end. The wool can, with a little practice, be wound tightly on the end of the wire, so as to be small enough to go right to the bottom of the sinus. I then withdraw the wire and put in a drainage-tube just large enough to fill the sinus, and keep it in; the interior of the sinus is, by the acid, induced to granulate, and if you are successful you will find almost day by day that a shorter drainage-tube will be required until the whole sinus is filled up. It may be necessary to apply the acid more than once, and to use other stimulants, as friar's balsam, solutions of sulphate of copper, or nitrate of silver, &c., but never strong injections. Care should always be taken to keep the external opening well dilated. I thought the heated galvanic wire passed to the bottom of the sinus would be very effective; but many trials have convinced me that it cannot be relied on, and that it causes much pain.

I have now seen many spontaneous cures of simple fistula, and have also seen an ordinary examination with a probe set up exactly the quantity of inflammation required to obliterate the sinus, and a good many of such results I have had opportunities of watching, and no return has taken place; but, on the other hand, the bulk of the so-called spontaneous cures are illusory and the disease returns in time, and even the same may be said of those in which treatment, short of division, has seemed effectual. In my opinion, there is nothing equal to the division of the fistula and getting it to fill up soundly from the bottom.

Spontaneous
cures

I will relate a few cases of spontaneous cure, and also an example or so of cure by treatment, which have occurred in my practice.

Cases

Spontaneous cure of a blind external fistula.—Wm. B——, æt. 49, a draper's assistant, had had an abscess for five months by the side of the anus, which was opened, and ever since there had been a discharge from it; at times it was very sore and swollen, then it broke, and discharged, whereupon he became comfortable. On examination a blind external fistula was found, the orifice being close to the external edge

of the sphincter ; the sinus ran up quite an inch, and did not approach near to the mucous membrane. I was quite sure, from a most careful examination, that no internal aperture existed.

No treatment was adopted, as I intended to take him into St. Mark's when there was a vacant bed. He only had a little calomel ointment ordered, and a pill to keep the bowels acting. In three weeks he told me the sinus had healed, and on examination I found it to be so ; of course I expected it to break out again.

I saw him some weeks afterwards, when the sinus remained soundly healed, and the hardness was fast disappearing.

Two months later the fistula remained quite well ; there was no evidence of where it had been, no mark of the original aperture, and no induration. My opinion is that the probing in this case was just sufficient to set up granulation and rapid closure of the sinus. It did not return, I am sure, as the man would certainly have come again to me, being so delighted with the result of what he considered my skilful treatment.

Blind external fistula ; spontaneous cure.—J. C——, æt. 46, a porter at the Tilbury Station ; admitted into St. Mark's. Steady man ; sufferer from ague. Six months before had had a rectal abscess, which had burst, and had continued to discharge more or less up to the time when I saw him. A sinus was found running some distance up by the bowel, rather deeply situated, and not communicating. I wished to take him in, but he said he could not lay up then. Ordered a mild aperient, and some zinc ointment. In a fortnight he came again, and said the fistula had healed. I examined him, and found it closed ; moreover, it was not tender.

One month afterwards.—Again examined ; found it still well ; no pain ; very little hardness ; no discharge from the bowel ; and I explored the rectum to see if it could have opened internally, but this was not the case.

I told him to return in another month, when I found him quite well. I believe he has never had any return of this malady.

Blind external fistula ; spontaneous cure.—Jas. L——, æt. 65, came to St. Mark's Hospital. The external aperture was some distance from the anus ; the sinus passed up beyond the external sphincter, and the probe could be felt rather nearer the mucous membrane. No particular treatment. The probe was passed again in about a fortnight after he was first seen. The sinus healed up while he was waiting his turn to come in. I kept him under observation for about six months, when, finding no return of the fistula, no pain, no discharge, no internal opening, no hardness in the old track of the sinus, I discharged him as cured.

Complete fistula in ano ; spontaneous cure.—W. H. K——, 30, clerk, admitted into St. Mark's. Not very strong ; habits regular. On examination a small but complete fistula was found on the right

side of the anus, the external opening being quite an inch from it, the internal aperture in the usual place between the two sphincters. In six weeks I took him in as an indoor patient, and on going to operate I found the external orifice so firmly closed that I could not without unwarrantable force get a probe into it; I could feel the internal aperture very small. There was no pain, so I left him. A week later I again examined him, and found the internal orifice also closed. I kept him in the hospital another week, and still the fistula remained healed, so I put him upon the out-patient list, and he attended for some time, when, finding the fistula still closed, and there being no pain and no induration, I discharged him as cured, requesting him to come again immediately on any return of pain or swelling. I have not seen him since.

Most of the cases of fistula which I have tried to cure without an operation have occurred in private practice. The reason is, that time is generally a great consideration to the poor man; he does not mind a little pain; he wants to be cured as quickly as possible, and therefore prefers to be operated upon at once, in order to get well certainly and speedily. It is only the rich who can afford the luxury of three or four months' treatment, finding themselves perhaps at the end of that time in much the same condition as they were at its commencement. Altogether I find that I have had about fifty successful cases, and a considerable number in which I have failed to effect a cure after a prolonged attempt; therefore I cannot say the prospect is very encouraging, but patients who will not submit to the knife will often allow me to use the elastic ligature, and of that I shall have more to say presently.

Cases cured by Treatment.

A gentleman, æt. 50, a free liver and very nervous, came to me with a blind external fistula on the right side. I could hardly examine him in consequence of his terror, so I ordered him some sedative ointment, and requested him to come again in three days. He was on his second visit less timorous, and I made out that he had an anal fistula of the blind external kind. I advised division, first by knife, then by the elastic ligature, but he turned a deaf ear to all I could say. Cut or tied he would not be. The experience of Louis XIV. was nothing to him, and he thought very disparagingly of an art which could do no better than cut people. He readily assented to my making trial of any treatment not very painful, so I dilated the opening with a sponge tent, and then wiped out the sinus thoroughly with carbolic

Cases of
cures by
treatment

acid. The pain was trivial, only slight burning for a few minutes. After twenty-four hours I put in a small india-rubber drainage-tube. He went about as usual, but the bowels I kept confined for six days. At the end of that time a copious enema of oil and gruel thoroughly relieved him. The discharge from the fistula had been gradually diminishing, and the sinus was much less deep. All I now did was to keep the external opening wide by a piece of sponge, and in three months the sinus was quite healed. I have good reason to know that this case was a genuine success.

A gentleman, æt. 40, robust, but wonderfully cowardly, came to consult me. An examination showed a small blind external fistula. He had suffered from abscess near the rectum, which a surgeon had opened for him nine months previously, and the pain he had gone through from that was such as to make him determine that nothing should persuade him to be cut again. I immediately proposed the elastic ligature, in which I assured him I had great confidence; but unfortunately he had, before seeing me, consulted a surgeon, who related to him an awful case he had experienced with the ligature, which did not come away for nine days, during which time the patient was in incessant pain. So he would have none of it. I dilated the external opening with the tangle, and then put in a drainage-tube, but did not use carbolic acid or any strong application, as the patient feared pain. For some time this case did not do well, and I was on the point of giving it up, when I persuaded him to take an anæsthetic and allow me to dilate his sphincter muscles (which were very spasmodically contracted), and apply the carbolic acid. He consented; and the result of this combined attack, and keeping him in bed a week, conquered the sinus, and it healed quickly. As I never heard from him again I imagine he remained well.

Collar-stud

✓ A difficulty in these cases is to keep the external orifice very large without irritating too much; and my late friend Mr. Clover, with his usual ingenuity, effected that object wonderfully well in a case I saw with him, by inserting a bone collar-stud into the opening. When this was slipped in, it remained fixed, and the patient wore it and went about without complaining even of discomfort. Since seeing this case I have tried the collar-stud on many occasions, but have had a small hole drilled through from end to end, in order that no pus might be retained in the sinus, and it has answered the purpose I desired viz., to keep the external orifice large.

A lady was sent to me from the country with a small abscess, which had been opened, and a sinus running up the bowel for quite an inch. She was most desirous to be cured, but would not have the

knife, and feared the elastic ligature. I was able, after a little dilatation of the orifice, to get the bone stud in, and in ten days the sinus had healed. To give her every chance she kept her sofa, and I confined the bowels for seven days. I saw this patient some years later, when she was still quite well.

I must remind my readers that simple blind external Dilatation and even complete fistula may occasionally be cured by forcible dilatation of the sphincters. This dilatation, when combined with the application of carbolic acid, is especially useful when the patient is unable to lie up for some time. By these means I have been successful in curing several cases. The patient need only rest for two days after dilatation, and can then return to his work. I need hardly say that this is a very uncertain mode of treatment, and should only be adopted at the urgent request of the patient.

In all cases of fistula the further the external aperture is from the sphincter the more likelihood is there that the sinus may be healed by palliative measures.

CHAPTER IV.

FISTULA AND THE TREATMENT BY ELASTIC LIGATURE.

Originator
of elastic
ligature

As I have been considering the treatment of fistula without cutting, I think, before describing the usual methods of operating, I had better relate my experience of the use of the elastic ligature, its mode of application, and endeavour to point out what really it can do and what it cannot be expected to do. And at once I will freely confess that when I read a paper before the Medical Society of London, in February, 1875, on the treatment of fistula and other sinuses by the elastic ligature, I anticipated a wider use for it than I have found. Still, I must assert that the ligature is most valuable in many cases, and frequently invaluable as an auxiliary to the knife.

Professor Dittel, of Vienna, may certainly be called the apostle of the elastic ligature, but he was not the discoverer, as Mr. Henry Lee and also Mr. Holthouse had previously used it for the removal of *nævi* and in anal fistulæ. When I read Professor Dittel's paper I came to the conclusion that the india-rubber ligature might be found very useful in the branch of surgery to which I had paid special attention. I therefore determined to make a fair trial of it, and have now employed it in more than 180 varied cases. I can truly say I have over and over again been very glad that the utility of the elastic ligature had been brought forward by Professor Dittel after it had quite fallen into oblivion.

Ligatures of thread have been employed for a great many years, even, we may say, from the time of Ambrose Paré, for cutting through certain structures, mainly arteries; but hæmorrhoids, *nævi*, warty and pedunculated

growths have constantly been removed by the application of a ligature, and the reason it has not been more extensively available has arisen from the fact that only a comparatively limited thickness of tissue can be cut through by *one* application of the ligature, which, as suppuration takes place, becomes loose, and then does not penetrate further unless it be re-tightened ; it is therefore only small and soft growths that can be safely and advantageously treated by the *inelastic* thread ligature.

Various means have been devised to overcome this inherent defect, and make the thread ligature cut, by constantly or frequently tightening the thread. Such means are shown in Ricord's instrument for the treatment of varicocele ; and Mr. Luke's double screw, which he invented for cutting through rectal fistulæ which ran so high up the bowel as to be considered dangerous in division with the knife. A variety of methods, of which a spiral spring is the essential, have also been employed, from a wooden spiral-spring letter-clip up to the very ingenious sarcotome of Dr. Ainslie Hollis.

Improvers
of elastic
ligature

To all these methods, comparatively good as they may be, some very strong objections can be raised. From considerable experience, I know that Mr. Luke's double screw, advantageous as it has proved, causes very intense pain ; the daily or frequent necessity for tightening the ligature inflicts upon the patient a torture often unendurable, and on many occasions the knife has had to complete what the ligature began, the patient being unable to endure the long-continued suffering. Another very grave objection to the intermitting application of pressure is the frequency with which secondary abscesses occur. I have noticed this result in my own practice, and seen it also in that of other surgeons.

Dr. Hollis's sarcotome is very superior to the others in action, but even this requires tightening or re-setting from time to time ; it acts likewise only in one direction, and therefore lacks the even, *circular* pressure exerted by the india-rubber. Another important objection is its size and weight, which render it under many conditions inapplicable.

It must be evident, on reflection, that the pressure of the india-rubber band or loop is not always the same during all the progress of the cutting—in fact, it diminishes gradually as the loop of the ligature becomes less in circumference; but practically the pressure up to the moment of separation, if the loop be properly adjusted at first, is sufficient for its work.

The greatest pressure exerted by a solid india-rubber ligature of the thickness of 1-10th of an inch, stretched to the utmost, only equals $2\frac{1}{4}$ lbs. weight; for example, 6 inches of india-rubber, when stretched to its utmost, *i.e.* 3 feet, exercises a power of $2\frac{1}{4}$ lbs.; when stretched to 2 feet, only a little more than $1\frac{1}{4}$ lbs.; and when stretched only 1 foot, or double its length, $\frac{1}{2}$ lb.; and even this power is quite sufficient, as shown by experiment, to pass through any ordinary tissue, in consequence of its unremitting and even pressure in every direction.

Allingham
senr.'s
method of
using elas-
tic ligature

I have for a long time now used only solid india-rubber, so strong that I cannot break it; and I put it on as tightly as I can and fasten it by means of a small pewter clip pressed together by strong forceps. The ligature cuts through in about six days, *i.e.* that was the average time in ninety cases of fistula. The shortest time has been three days, and the longest fourteen days, and in the latter case a solid portion of flesh, three inches in length and two inches in thickness, was cut through without any tightening of the ligature. You may be sure that those who find a difficulty in getting the ligature to cut quickly and painlessly are ignorant of the proper method of applying it.

Advantages of the
ligature

What are the advantages of the ligature? Briefly these, that in simple cases there is little or no pain inflicted by the operation; the patient can walk about without danger. I have had many cases proving that nervous persons will often submit to the ligature when they will not to the knife. There is no bleeding—a manifest advantage in dealing with patients whose tissues bleed copiously on incision. I have found it useful in several such cases. In phthisical cases it is, in my opinion, the

best means of dividing a sinus. In very deep, bad fistulæ the elastic ligature is most valuable as an auxiliary to the knife. I now most frequently use it in this way—avoiding hæmorrhage in sinuses running high up the bowel where large vessels are inevitably met with. I have had many examples of this, and have readily and painlessly divided vascular structures without any danger of bleeding. In an unusually bad case sent me by Dr. Wm. Price, of Margate, a timid lady did not know the ligature had been used until it came away on the seventh day, as she had absolutely suffered no pain worth complaining about, and certainly not more than when the knife is used alone. I have now operated on thirteen medical men, and they all have told me that there had been no pain, and even very little discomfort from the ligature, and it had been a great advantage to them, as they were able to get about in a moderate way and see their patients. One mistake committed by those who oppose the use of the ligature is this: they think the wound does not commence healing until the ligature has come away. Nothing is further from the truth. When the ligature, if it has been well applied, has cut its way out, the wound is often very nearly healed. I beg to refer my readers to a monograph by Professor Courty, of Montpellier, in corroboration of my statement. This gentleman has used the elastic ligature frequently, and has been most successful. Now, what is the great objection to the general use of the ligature in fistula? It is this. It is very difficult, or even impossible in many instances, to be absolutely sure that only *one* sinus exists. If there are lateral sinuses, or a sinus burrowing beneath or higher up the rectum than the main trunk through which you pass your ligature, the patient will not get well at one operation. In *these* complicated cases the knife alone, or conjoined with the ligature, is the only trustworthy remedy. So it comes about that surgeons not very *au fait* in the diagnosis of fistula soon get into trouble, and at once condemn and throw aside the ligature.

Disadvantage of the ligature

I had employed the india-rubber ligature in only a very few cases before I came to the conclusion that if I intended

operating frequently, or if ever the method were to become popular, other and better means than those recommended and used by Professor Dittel must be devised for the introduction of the ligature through the fistula. Professor Dittel has described several ways of accomplishing the end in view; all of them appeared to be theoretically imperfect, and I found them in practice difficult of performance, tedious, and exceedingly painful to the patient. For complete fistula he used a probe with an eye near its point, which was to be passed from without to within, carrying the india-rubber and a strong thread, so that if the india-rubber broke in tying, another ligature could be drawn by the thread through the sinus. Another method was to pass a tubular probe; through the tube a fine wire was to be introduced, and the end hooked down by the finger passed into the bowel; the probe was then to be withdrawn, so that the wire traversed the fistula, one end hanging from the outer opening, the other emerging from the anus; the india-rubber was then to be fastened to the wire and drawn through the fistula. This was really a very difficult task to accomplish; sometimes the wire broke and the probe had to be reintroduced; it was therefore found better to attach to the wire a piece of strong thin cord and draw that through the probe, and then attach to it the india-rubber, which, in its turn, was at last got into the desired position. I need scarcely say that this is a very lengthy, as well as painful, mode of procedure, as the thin wire or cord cuts the inner opening of the fistula. For cases of incomplete fistula Professor Dittel recommends a director to be passed as far as possible up the sinus, and along the groove a sharp needle armed with the india-rubber is to be carried and the bowel perforated, the ligature drawn from the eye of the needle by the finger, and the needle removed. This, I may remark, if the sinus runs far up the bowel, is by no means so simple of accomplishment as it may appear. Being, then, very dissatisfied with these methods of operating, I set myself to find some better and simpler plan, and on reflection I came to the conclusion that the india-rubber could be *drawn* much more readily from within the

rectum through the internal opening (or through an artificial perforation in the bowel) than by commencing to pass it from the external opening. This conviction led me to devise this simple instrument (which is shown in the woodcut) for *drawing* a ligature through a fistulous sinus or beneath a tumour; and Messrs. Krohne and Sesemann have, with much care and pains, rendered it, in my opinion, practically quite perfect.

It consists, as will be seen, in the combination of a concealed hook or notch, with a blunt or sharp-pointed probe, as the case may require. A shows the curved probe with the hook concealed by the sliding canula, ready to be passed through a fistula, or c, if a sharp point be substituted for a blunt one, under a tumour. B exhibits the instrument with the canula drawn back, and the previously concealed notch exposed, ready to receive the loop of india-rubber; when this is placed in the notch, the canula is pushed home, and the ligature is held so firmly that it cannot escape. Thus a double

Allingham
senr.'s in-
strument
for intro-
ducing
elastic liga-
ture

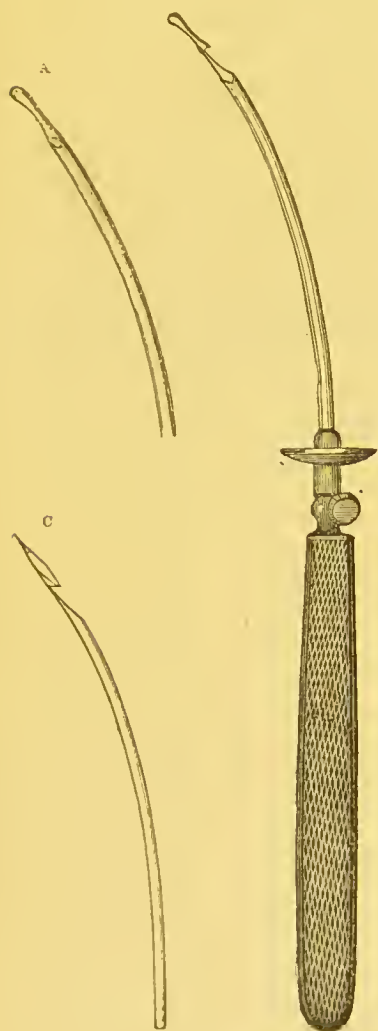


FIG. 14.—WOODCUT SHOWING MR. ALLINGHAM'S INSTRUMENT FOR DRAWING THE INDIA-RUBBER THROUGH A FISTULA FROM WITHIN OUTWARDS.

ligature can be readily drawn through a fistula or beneath a tumour. It is not necessary in fistula to see the hook, for if the finger, with a loop of india-rubber around it, be passed up the rectum, the loop can, with perfect facility and without the aid of vision, be directed over the end of the probe and caught in the notch. c shows the sharp-pointed instrument

adapted to the same canula, so that only one handle and one canula are required to complete the double instrument. It is obvious that with my instrument a double ligature is carried through the sinus; this is an advantage, for if the india-rubber breaks as it is being tied there is a second ligature to fall back upon. I ceased, however, to use the knot very soon after making trial of the ligature, and I now use only a small oval ring of soft metal; the two ends of the ligature are threaded through this, the india-rubber is pulled as tight as is required, and the metal ring is then closed by a strong pair of forceps. The ring holds perfectly tight, it never breaks the ligature, never gives way, and the closure is effected in a moment.

CHAPTER V.

OPERATIONS ON FISTULA IN ANO.

BEFORE proceeding to operate upon a case of fistula it is highly important that the bowels should be well cleared out, and I prefer, whenever possible, to administer a purge three days prior to operating, and again the night before. The purgative I generally use is—

Prepara-
tion
of patient
for opera-
tion

R Pil. hydrarg. gr. j
Pil. col. et hyoscyami gr. iv—M.

Take two.

An injection should also be given on the morning of the operation.

When operating upon a case of fistula, it is always wise to have the patient under an anæsthetic, for it is sometimes perfectly impossible to tell how much may have to be done. The case may seem to be very simple, but upon laying open the main sinus secondary ones may be found. Now should the patient not be anæsthetised he may draw up the buttocks and the sphincter become contracted. If this happens you will be unable to find the lateral sinuses, the operation will be incomplete, and no cure effected. It is also desirable to have an assistant, for the upper buttock must be well held up; and if a sinus be found extending far into the bowel and a large vessel be divided, without the aid of an assistant great difficulty may be experienced in arresting hæmorrhage.

Necessity
for an
anæsthetic

If the patient refuses to take an anæsthetic, unless I am convinced he is very strong-minded, I positively refuse to operate. I always explain that to do so is not fair either to him or to myself.

As an example of the folly of operating without ether, I may cite the following case:—H. T. had a blind internal fistula which gave him great pain. With difficulty I succeeded in laying open the sinus, for he could not resist screwing up the buttocks and anus. Profuse bleeding ensued, which I attempted to control, but could not. I therefore compelled him to take ether, and then discovered two lateral sinuses and very bad piles, which I of course removed. I will now describe the method of operating.

Position of
patient

The patient should be placed on a hard mattress on the side on which the fistula exists, the buttocks being brought quite to the edge, or rather overhanging the edge of the couch, and the knees well drawn up to the abdomen. I have no hesitation in saying that, for the majority of rectal operations, this position is by far the most convenient both for the surgeon and the patient; but occasionally the lithotomy posture is preferable, as, for example, in performing excision of the rectum, or in cases in which there is a fistula on both sides of the bowel.

Directors

Now being provided with various probe-pointed and other kinds of directors as represented in the diagram, choose the one most suitable to the case; if the fistula is shallow, use A; if deep, use B; and vary these according to the nature of the sinuses which you may have to lay open.

Method of
operating

Oil the one to be used and pass it into the external opening, through the sinus and the internal opening, if possible; then insert your finger into the rectum, and on feeling the point of the director in the bowel, if the patient be not anæsthetised, tell him to strain down; you will then be able with some difficulty to turn the point out of the anus. This done, the tissues



FIG. 15.

forming a bridge over the director are to be divided with a curved bistoury.

If the fistula be very deep, running outside and above the sphincters, you will not be able to get the point of the probe out at the anus even if the patient be anæsthetised ; in such a case you must pass the director well through the sinus, then insert your left forefinger into the rectum, steady the director, and run a straight knife along the groove, cutting carefully towards the bowel until the parts are severed. This is by no means an easy operation, and requires much practice and experience to accomplish quickly and without bungling. To the inexpert surgeon in such a case I recommend my deeply grooved director and scissors which I shall describe further on (p. 47) ; I may add that gentle dilatation of the sphincters under these difficulties gives the surgeon an immense advantage, of which I now constantly avail myself.

If there be no internal opening, you will almost always find some part where only mucous membrane intervenes between the point of the probe and your finger. Should this be the highest point of the sinus, work the director through the membrane and bring down the point as before. If it be not the highest point of the sinus, the probe should be gently pushed further and then thrust through the tissues into the bowel, for unless the sinus is laid open to its entire extent, you will fail to cure your patient. Be careful not to direct the probe out of the sinus into the loose cellular tissue : unless you are very careful, this may be easily done, and an unnecessarily high division of the tissues ensues. You must not rashly thrust the point of the probe through the mucous membrane, or you will wound your own finger ; this accident may always be avoided by a little gentle and patient manipulation, even when the tissues are indurated. When you have divided the fistula from the external to the internal opening, search higher with the probe for any sinus running up beyond the internal opening ; if this exists you should lay it open.

I know many authorities have stated that it is only necessary to incise the fistula between its external and

internal openings, and that the sinus above the internal opening will spontaneously close; my experience is most decidedly opposed to this statement.

Importance
of laying
open all
sinuses

In the great majority of cases you will not cure your patient unless you lay the whole sinus open from end to end. Over and over again I have left the sinus above the internal opening uninterfered with, and almost invariably have had to regret having done so, and to perform a second operation. It constantly occurs to me at St. Mark's to treat cases which have been operated on at other hospitals, the upper part of the sinus having been left and the patients not being cured. In such cases fresh or continued burrowing takes places from the upper track, and a second operation, often more severe than the first, is rendered necessary. It needs scarcely be said that in private practice this is very damaging to the surgeon's reputation.

Having, then, opened the fistula in its whole length upwards, search with the tip of the finger assisted with the probe for lateral sinuses extending from the main track; also see if there be any burrowing outwards beyond the outer opening. A fistulous orifice is often not at either end of the sinus, but somewhere in its course. Examine carefully to see if there be a secondary sinus beneath the track of the main sinus. Frequently, in fact nearly always, in old-standing cases, the deeper sinus does exist, and unless it is incised with the rest the patient will not get well.

Way in
which
sinuses may
be missed

In cases in which the sinus is very tortuous, the probe may be passed into the one end and then make a false passage and enter the sinus again. Now if the intervening portion be not discovered and laid open, the fistula will not be cured; for (*see* diagram 16) the portion left will stop the healing of the wound, especially if it be an old and hard track.

Some surgeons have asserted that it is unnecessary to divide any but the principal sinus, and that if this is done the rest will heal. On this point I cannot speak too strongly. I am certain you can never guarantee the healing of a fistula so long as any lateral or deep sinuses

remain ; and so long as they do remain fresh sinuses are apt to form. As a rule the best plan is to lay open the original sinus first and the tributary ones afterwards.

I may confidently assert that it is better to cut too much into the buttocks rather than too little, in the case of a fistula ramifying in those parts. This, however, does not apply to fistulæ extending *high* up into the *bowel*, for unnecessary cutting in this region may be followed by incontinence of fæces.

It is impossible in any work to do more than lay down general rules ; every case will call more or less upon the surgeon's knowledge, dexterity, and prudence ; but in thus strongly expressing my opinion, contrary to the dicta of many eminent men, I can only say that I am stating what I see almost every day to be the truth.



FIG. 16.

When all the sinuses are slit up, with a pair of scissors take off a portion of the *overlapping* edges of the skin ; they are often thin and livid, having very little vitality. If not removed, they will fall down into the wound and materially retard the healing process. It is expedient, for the same reason, to remove any piles or polypoid growths, for if left they will daily drop into the wound and so act as foreign bodies. They thus constantly irritate the wound and prevent its sound healing, just as a polypus impedes the healing of a fissure.

Removal of
overlapping
skin, &c.

I have frequently induced healing in a fistulous track, which had been only laid open, by paring off the edges of the skin, which were undermined. It must be observed that I am not advocating 'cutting out a fistula,' as it used to be called ; I am only recommending the removal of any overhanging, undermined, degenerate skin. When several

sinuses have to be laid open, I am in the habit of carefully preserving islets of skin from the edges of which granulations will take place, and by which cicatrisation is materially hastened. Indeed, I have in many cases practised skin-grafting with good results, though failures have been frequent.

In old-standing cases, where there is much induration, it is very good practice to draw a straight knife through the dense track of the fistula, and outwards beyond the external opening; it is wonderful how rapidly quite cartilaginous hardness passes away after this has been done. This incision was commonly practised by the late Mr. Salmon. He called it his 'back cut,' and although if carried to excess incontinence of fæces may result, I have no hesitation in saying that Mr. Salmon cured many cases by this means where other surgeons had failed.

Having completed your operation, take some finely carded cotton wool, and with a probe pack it well into the bottom of the wound, packing it into every part, and being the more particular about this if your incisions have been extensive, or pass high up the bowel, or if the parts are very dense and gristly, as they are in old fistulæ, and especially in cases operated upon for the second time. A good firm pad of wool should then be placed between the buttocks over the wounds, and a T-bandage firmly applied. With these precautions you need never fear hæmorrhage, for, if the bleeding be thus arrested by pressure at first, all will be well; if, however, the wool be carelessly stuffed into the bowel without method, it will not be placed evenly at the bottom of the wound, and then, as soon as the patient rallies from the shock of the operation, bleeding will recommence, and both patient and surgeon will be put to much annoyance, and probably some anxiety. Of course, if you see a large vessel spirting at the bottom of a wound it is best to close it by torsion or ligature; when, however, the track of the fistula is very callous you cannot secure the vessel, and a clip-forceps may then be applied and left on.

By careful attention to the details above given, a sinus may be opened to any possible distance up the bowel, or in any direction or depth, without positive danger, but on the

Dressing of
wound after
operation

whole, for very deep bad fistulæ, the elastic ligature is, as I have before said, generally to be preferred.

If the rectal sinus runs up so high and the parts are so dense that you cannot get the point of your probe-director out of the anus, and you prefer to cut, the safest and easiest way of operating is with the spring-scissors and special director designed by me and first made by Ferguson, of Giltspur Street; with this instrument you can divide fistulæ high up the bowel, however dense they may be, with great facility and quickness. The director is made with a deep groove, the transverse section of which is more than three-quarters of a circle; in this the globe-shaped probe-point of one blade of the scissors runs. Once placed in the groove it cannot slip out; so, having passed your director through the sinus, you introduce the forefinger of your left hand into the bowel, then insert the probe-pointed blade

Use of Allingham senr.'s scissors for fistula, running high up bowel

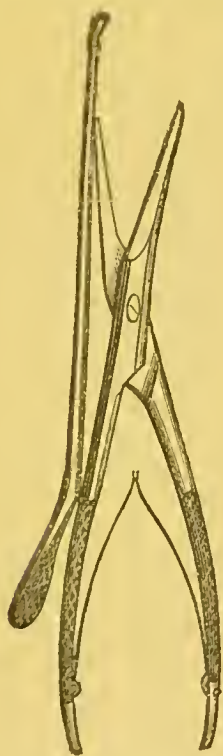


FIG. 17.—SPRING SCISSORS, with probe point in the grooved director. It should be observed that the scissors can only be removed from the groove by drawing them out towards the handle of the director.

of the scissors into the groove in the director, and run it along, cutting as you go, the finger in the bowel preventing the healthy structures from being wounded. By this instrument operations usually very difficult, and in which, without great caution, you are apt to break your knife, are rendered quite simple. A country hospital surgeon told me that after seeing my description of this instrument he procured one, and uses it *in all* his cases of fistula; he says it is 'operating made easy.' I have not said a word about the old method of operating, usually described in works on surgery, because I consider the mode I have detailed so much more satisfactory and practicable.

It was in cases of sinuses running high up in the rectum, or where stricture existed in conjunction with

Ecraseur

fistula (the internal aperture being *above* the stricture) that Mr. Luke, in the year 1845, recommended cutting through the diseased structures by means of a fine piece of strong twine and a screw-tourniquet. It is an operation by no means easy of performance, but this is the way in which it is done, and it was, no doubt, very useful in some cases. Introduce a hollow probe through the sinus and into the bowel, then pass a piece of thin wire through it, hook the end down, and bring it out at the anus; then withdraw your probe, fasten the twine to one end of the wire, and draw on the other end. By this means you get the twine to traverse the sinus, one end coming out at the anus and the other at the external opening of the fistula. Attach the twine now to your tourniquet, and screw up a little every day or two. In this way you may cut through very dense structures without any great danger; but the method is always painful, and is apt to cause inflammation, suppuration, and fresh abscesses. I have noticed these results in my own practice, and also in that of my colleagues. But in all these cases the elastic ligature is so very superior, being more easily applied, quicker in action, and absolutely painless, that I cannot conceive of anyone using Mr. Luke's tourniquet now.

Method of
operating
upon blind
internal
fistula

In operating upon a blind internal fistula, if you can feel, by the hardness externally, the site of the abscess, you may plunge your knife into it, and thus make a complete fistula, through which, of course, you pass your director. If you cannot feel any hardness or see any discoloration to guide you to the situation of the sac of the abscess, the best way of proceeding is to bend a silver probe-director into the form of a hook, and then hook this into the internal aperture, and bring the point down close under the skin; you then cut upon it, thrust it through, and complete the operation.

This requires a little dexterity and some practice to manage well, but it is by far the surest way of hitting off the sinus. These blind internal fistulæ are very often not understood, and consequently are mistaken for other diseases. Not infrequently an internal fistula is con-

nected with hæmorrhoids. I have seen many such cases. I think when strong applications are made to hæmorrhoids, suppuration may be set up, and then an internal fistula may form. Here is a case probably of that kind :

A gentleman came to me having great pain in the rectum on and after defæcation, generally worse after ; sometimes coming on half an hour after leaving the closet. His history was that he had suffered from hæmorrhoids, which came down and bled, and that about seven weeks before seeing me he had undergone an operation for the cure of the piles. The operation consisted in thrusting a cautery iron into all the piles ; great pain followed, and he kept his couch for fourteen days, when he began to feel better, and his piles did not come down, but there was discharge of matter. He was told that now all was right, and in a few days he might go about as usual, but after resting another week he still had pain on and after stool, and lost blood. He went into the country, but, not getting well, at last sought my advice. On passing my finger into the rectum, I found a large deep ulcer, and a sinus running from it upwards and downwards ; the piles which still existed were angry and tender, and very ready to bleed. As nothing but an operation could cure him, I slit up the sinuses, drew a straight knife through the bottom of the ulcer, bringing it right out so as to divide the sphincter freely. I also placed two fine ligatures around the hæmorrhoids. He had no bad symptom, remarkably little pain, and was quite well in five weeks. In this case, the thrusting of a fine cautery set up suppuration, and caused an abscess, which, bursting, made a great ulcer, and which ulcer formed the internal opening to the sinuses. Cases

These cases of *blind internal fistula* are instructive. I will therefore relate another :

I saw, with my late friend Mr. T. Carr Jackson, a professional brother who had been suffering for some time from pain on defæcation, and burning afterwards, with discharge of matter always upon the motions ; he was also much troubled with his water, having considerable irritation of the bladder. He had been operated upon, but without getting better ; there was no ulceration, nor was there any fissure. On examining this gentleman I at once found what I expected, a small internal aperture about two inches from the anus ; from this a sinus ran upwards and downwards. The anus (with its outside surroundings) was perfectly healthy. Mr. Jackson, assisted by me, at once slit up the sinuses, and the patient was rapidly and permanently cured ; all his bladder-symptoms likewise vanished.

These cases of internal fistula require very careful examination to make a correct diagnosis. Often the surgeon

Ulcer at
opening of
internal
fistula

finds an ulcer, but does not attempt to pass a probe into it. Truly it is an ulcer, but in addition it is the opening of an internal fistula, which may burrow in more than one direction. Operations upon internal fistulæ also require more than ordinary care. If you find an internal opening in the bowel, and a sinus running up higher from it, never lay the sinus open simply; in the first place, if you do, you are very likely, after you leave your patient as you think quite safe, to have some hæmorrhage take place, and the blood will be retained in the rectum until so much has accumulated that the patient must pass it. In such a case always bring your incision out through the anus, that no blood may be retained. Blood retained in the hot rectum foment the part, and prevents coagulation and closing of the vessels, which are frequently large and increased in calibre by the long-continued inflammation of the part. Again, if you divide an internal sinus, you make a deep cavity whence pus or discharge can never thoroughly escape, and in consequence the wound will not heal.

Hæmor-
rhage

Whenever you have to make an incision through the mucous membrane and into the submucous tissue in the rectum, without continuing your cut to the outer parts, beware of hæmorrhage. Plug the rectum well and use a styptic, either the subsulphate of iron or a saturated solution of tannin.

I have seen one death from this form of hæmorrhage occur in the hands of a very good surgeon, and another case, during very hot weather, in which a patient most narrowly escaped with his life from a like want of care.

Internal fistula, I have already said, may commence by an ulceration of the mucous membrane; or perhaps, more rarely, by a small abscess forming in the submucous areolar tissue; this may be the result of wounding or bruising by hardened fæces or foreign bodies swallowed. I will mention two excellent examples of this condition. Two ladies complained of considerable pain in the rectum. On examination in each case a rounded hard swelling was felt about an inch from the verge of the anus. On more carefully investigating, a very small orifice was found running

into this swelling. In both instances foreign bodies, *i.e.* fish-bones, had been felt by the medical attendants before I saw the patients.

I am decidedly of opinion that when internal fistula commences by ulceration it is most frequently found associated with phthisis. I shall not go into this important question here, intending to devote a later chapter to the special consideration of this subject.

In operating upon women suffering from fistulæ (especially when the sinus is near the perineum), cut as little as possible, for anatomical reasons; viz. the sphincter vaginæ decussates with the external sphincter of the anus, and by too freely dividing the latter the point of resistance is lost. Anything like too free incisions are apt to end in incontinence of fæces, or, at all events, in such partial loss of power in the sphincter as to prevent the patient retaining flatus, a result which I need scarcely say is a most disagreeable one. I have been several times consulted by ladies on account of this condition, and in some cases I have been successful in restoring the lost power, much to my patients' satisfaction. Of very great importance is the question of incontinence of fæces which may result from extensive operations on the rectum where the sphincter muscles are freely divided. A patient who suffers from inability to retain flatus or fæces is in a most unpleasant condition; in fact, some sensitive persons would not undergo any operation which was at all likely to induce such a state, and would prefer any physical suffering rather than the perpetual fear of being in any way offensive to others. It behoves us, then, to consider how much we dare do without danger of damaging or destroying the power of the muscles at the outer end of the rectum. Should you feel doubtful about the preservation of this power, you are bound to tell your patient what may happen, and then place the good and evil before him; if you fail to do this and the patient recovers with much loss of the power of retention, he is justified in complaining of your treatment. Incontinence of wind or liquid fæces results almost always from cutting the muscles, and principally the internal

Care required in operating upon fistula in women

sphincter, in more than one place. If you have a double fistula, *i.e.* one on each side of the bowel running deeply beneath the internal sphincter, and you divide both muscles, great loss of power you most assuredly will have. If you can leave ever so narrow a ring of the upper part of the band of internal sphincter you are fairly safe. On one side you may divide the sphincters quite through without danger if you will only take care that your incision is made quite at *right angles* to the fibres of the muscles. If you divide the muscles at all *obliquely* you never obtain good union, and even in comparatively slight cases you may get incontinence; I am quite sure this is the secret of operating in bad cases without destroying the power of the muscles.

The subject of the treatment of incontinence of fæces will be fully dealt with in the next chapter.

Treatment
after opera-
tion

After an operation for fistula the bowels should be kept confined for about three days; a purge may then be administered, and full diet allowed. The wool usually comes out when the bowels act, but if it does not come away I gently and gradually remove it.

If much wool has been put into the rectum to prevent hæmorrhage, I generally take away a portion of it the next day, leaving some only at the bottom of the wound. If the whole plug is left in, the patient will probably be very uncomfortable, as he cannot easily get rid of wind, and, the danger of primary hæmorrhage being over in twenty-four hours, there is nothing gained by retaining a mass of wool in the bowel.

Very little dressing is required in the after-treatment of fistula; in fact it is better to do *too little* than *too much*. If lint, wool, or any other foreign body is daily thrust into the wound it is not at all likely to heal kindly. Daily after the action of the bowels, the wound should be gently syringed by a warm antiseptic lotion, such as Sanitas, Condy, carbolic acid, &c., to remove any fæces which may be caught in the wound and so cause irritation. A little cotton wool or fine oakum laid *quite gently* in the whole track of the wound to absorb the discharge and keep the edges from uniting, is all that is wanted. I have constantly seen the

healing process delayed by too great interference—*e.g.* probing, and stuffing lint saturated with ointments or lotions into the sore. I very rarely use anything but a little wool smeared with vaseline; only when the wound is unhealthy or sluggish do I prescribe lotions or ointments; then, according to circumstances, black wash, carbolic acid, nitric acid, the subsulphate of iron lotion, zinc or resin ointment may be advantageous. The compound tincture of benzoin I have found to be an excellent application. For the first few days I have sometimes employed carbolised oil, 1 to 20, as it keeps the wound moist, but you must not go on long, or the granulations will be destroyed by the acid, and the edges of the wound becoming irritated, cicatrisation will be thus retarded. When any irritation is seen around the wound, there are few better dressings than fresh pure olive oil; it sheathes the part, is very soothing and grateful to the patient, and under its use granulation goes on rapidly, the wound is probably nourished by the oil, and there is a remarkably small quantity of pus discharged.

Although the surgeon should not interfere with nature's work, he must be always on the watch during the healing process for any burrowing or formation of fresh sinuses. The granulation should be firm, not jelly-like, for the latter condition is of no use for sound healing. The wound may appear to be quite healed, but may break down again at its deeper parts and the fistula be re-formed. It is important to get the granulations into a healthy state, and not to let the wound close up too rapidly. The development of fresh sinuses is *generally indicated* by the sudden (and otherwise unaccountable) augmentation of the purulent discharge. Whenever a wound secretes more than its surface seems from your experience to warrant, be sure that burrowing has commenced, and search diligently for the sinus at once, for the longer it is left the larger and deeper it will get. Sometimes it is under the edges of the wound that it commences; at others at the end of the wound internally or externally, and occasionally it seems to dive down from the base of the main fistula. When the sinus is found, I need scarcely say that, as a rule, it should be laid open at once.

Importance
of watch-
ing for
burrowing
after opera-
tion

One other point : always encourage your patient to tell you directly he has any pain in or near the healing fistula : never make light of his complaints ; often he will be the first to discover, by the existence of some unpleasant sensation, the commencement of a small abscess or sinus, and will be able also to indicate its situation. I had under my care a gentleman upon whom I operated for severe fistula on the left side, and which had nearly healed ; during the treatment he told me he had slight pain on the right buttock three inches from the anus. I examined but could feel nothing, and my patient said all his abscesses on the left side commenced with the same sort of pain, and he felt sure another abscess was forming ; and the very next day I detected deep-seated fluctuation. I immediately cut down and let out as much pus as would fill an egg-cup ; had this been neglected the result would have been serious.

No fixed rules can be laid down for the treatment of these wounds ; it is in getting them to heal quickly, but soundly, that the skilful surgeon is shown. When to administer stimulants, when tonics, to feed the patient well, yet not to over-feed him, are all points in which common sense, practical knowledge, and the observance of apparently small matters will best guide us. There are few surgical cases that call more for intelligence and watchfulness on the part of the surgeon than the after-treatment of a bad fistula. I have often seen patients whom the best and most eminent surgeons in London have utterly failed to cure, because they left the patient after the operation almost entirely in the hands of persons who had not much experience, and who did not know what to expect and guard against. During the healing process do not purge your patient much, but take care that the bowels are fairly relieved ; this I generally accomplish by a mild alterative pill and some Friedrichshall water or other gentle laxative.

Recumbent
position

It is important that the recumbent position should be kept for some time ; its duration must depend upon the state of health and the extent and depth of the wounds ; too early or too much standing or walking about will not

only delay, but sometimes entirely prevent, cicatrisation. The more I see, the more confirmed I am in this opinion. The sooner you can get the wound to heal the better, for it stands to reason that the longer the wound remains unhealed the greater is the chance that some fresh abscess or sinus may form. You never ought to consider your patients quite safe until all sinuses or wounds are healed; and if they go from under my care before that, I always tell them they must take the responsibility upon themselves. I do not keep my patients long *in bed*, but I make them recline upon the sofa; this rule is especially advisable in delicate constitutions.

I cannot help repeating this warning: never, if you can avoid it, operate upon a fistula that is from any cause acutely inflamed.

Inflamed
fistula

While inflammation is going on, fresh sinuses are likely to form, the areolar tissue breaking down so readily; if you operate under these conditions, failure is almost certain to ensue. All you ought to do in such a case is to make a free dependent opening, and keep the patient at rest until the inflammation subsides, the sac of the abscess contracts, and the formation of sinuses is for a time completed; then, and only then, your operation stands a fair chance of succeeding.

In old-standing cases of ulceration and stricture of the rectum, fistulæ almost invariably form, but the internal opening is very rarely above the stricture, where one would think it ought to be; sometimes it opens into the stricture itself, but nearly always *nearer the anus than the stricture*. The treatment of these cases will be considered in the chapters on Stricture and Ulceration.

Fistula in
conjunction
with stric-
ture

It is a rule with me never to despise a small fistula, more especially if it be directly dorsal or perineal; often when you divide a seemingly most trivial sinus, you find from the opened track a deeper one passing up the bowel, and this condition, as I have pointed out, is an obstacle to the success of the elastic ligature.

Small
fistula not
to be des-
pised

When this is not the case, slight fistulæ are not rarely difficult to heal. I have been many times much troubled

by them, and generally in cases where they ran through the fibres of the external sphincter, and not quite beneath them, so that in operating only a portion of that muscle was divided. The late Mr. Salmon was in the habit of saying when he had laid open one of these fistulæ: 'Now I have made a fissure, and I shall proceed to cure it,' and he then drew his knife along the base of the sinus so as to entirely divide the external sphincter. Mr. Salmon was a man of very acute observation, and I am sure in many such instances this practice is the best that can be adopted. I do not say it is always necessary to make a *deep* incision through the external sphincter, but I always make one through the muscle in superficial dorsal fistulæ, and I am confident if you neglect this precaution, you will often have difficulty in healing these apparently very trivial sores. If they do not cicatrise quickly they become very much like fissures in appearance, and the patient will suffer pain more or less severe after, as well as at the time of, defæcation. Here is an illustrative case:

A gentleman had been operated upon by one of my colleagues for fistula and got well, but after some months another abscess formed in the site of the old wound; this burst. When I saw him there was a very small fistula, nearly dorsal, not deep, but tunnelling under the old scar. I opened this; in a fortnight it had not healed; no burrowing had taken place. I touched the sore with nitrate of silver, and ordered him some nitrate of mercury and opium ointment, but still it did not heal, and in another fortnight he began to complain of pain, lasting an hour, more or less, after the bowels acted. I now saw that without a freer use of the knife it would not heal at all, and might, and probably would, get deeper; so I persuaded him to lay up for a few days, and I drew a fissure-knife along the wound, beginning above it, and coming below the external end of it, and I took care to go right through the sphincter. This proceeding settled the matter: in about a fortnight he was quite well, and he has remained so. This case made a deep impression upon me, as I saw that the slight incision through the base of a fistula in this class of case is of no moment when you are operating, and it may save you some anxiety, and perhaps discredit also, afterwards.

Here is another case:

A gentleman with an apparently very small fistula, situated anteriorly, went to an eminent surgeon; it was so slight that the surgeon recommended him to be operated upon at once in his con-

sulting-room; this was done and the patient went home. After five weeks, the wound not having healed, I was requested to see the patient, and I found that from the bottom of the small wound there ran a deep sinus up the bowel and also forwards nearly to the scrotum. I do not say that these sinuses might not have formed since the first operation, but the case clearly shows how careful one ought to be both in diagnosis and prognosis. A certain cure had been promised in this case in a few days.

CHAPTER VI.

INCONTINENCE OF FÆCES, ITS CAUSES AND TREATMENT.

Causes of INCONTINENCE of fæces and of flatus may result from injudicious operations on ordinary cases of fistula, or may supervene on very extensive and far-reaching fistulæ which have been treated by inexperienced surgeons. This incontinent condition is exceedingly distressing to the patient, who often expresses a desire rather to die than to live on, a burden and a perennial source of annoyance both to himself and to his friends. In bad cases flatus is passed without the slightest warning, and before the sufferer can get to stool the contents of the rectum are discharged. It is hardly necessary to say that the cure of such an unpleasant state must be highly satisfactory both to patient and to surgeon. However, before describing the various modes of treatment and of operation, I will deal more fully with the causes of incontinence of fæces, and will narrate the several symptoms and conditions of these affections.

Varieties.
First

I. When too deep a cut has been made through both sphincters the wound may heal in such a manner as to cause a deep sulcus. The result of this is, that the continuity of the sphincters is interrupted at one point and their edges curled outwards by the contraction of the scar (*see* diagram 18). While the muscles are still strong, and the cicatrix soft and pliable, the motions may yet be retained; but subsequently the contraction of the cicatrix, and the fact of the continuity of the sphincter being broken, unite in causing a loss of muscular power. Such, as is well known, has taken place when the quadriceps of the leg is ruptured.

On contraction of the sphincters from the muscles being divided, the sulcus is widened, thus allowing the escape of

flatus and leaking out of fæces. Added to this, after a time there is a loss of power, and as this increases there

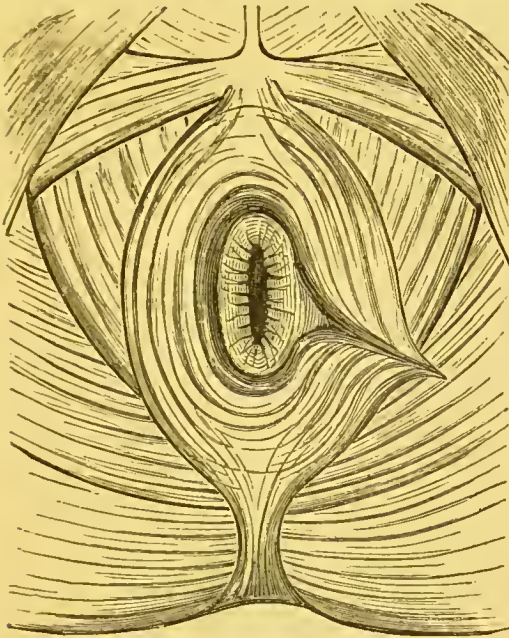


FIG. 18.

is a diminution of muscular sense. Thus the patient is then unable to appreciate the contact of fæces, and hence the contraction of the muscle may be too late and too weak to avert a catastrophe.

II. There may not Second be any deep sulcus, but the sphincter may have been divided in two places (*see* diagram 19) and thus a weak splicing may ensue, as generally occurs when the muscles have been divided obliquely and not at right angles to their fibres.

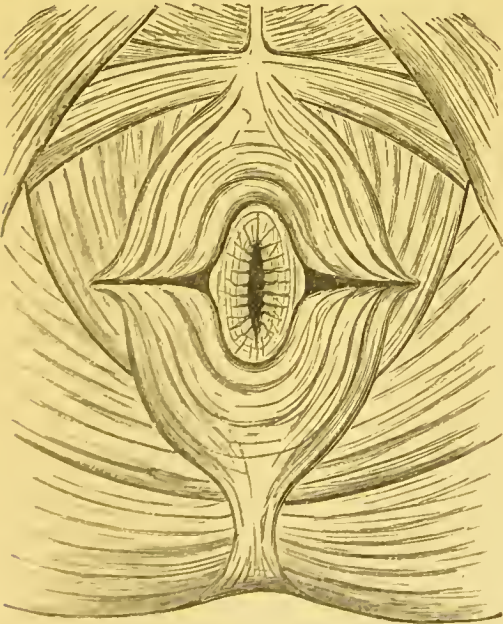


FIG. 19.

Here again one may observe a loss of tone and a consequent incontinence of fæces. The longer it is left the greater will become the paralysis of the part, as may be noticed in the case of other muscles of the body.

The two preceding conditions may of course affect both men and women, but the different anatomy of the latter sex may give rise to another possible source of incontinence of fæces.

Third

III. I have cursorily dealt with this in the last chapter, but a repetition may not be altogether undesirable. I refer to the decussation of the sphincter vaginae and the rectal sphincters. Owing to this anatomical fact a simple operation on fistulae in the perineal region may cause the distressing conditions above narrated; therefore in the case of women especial care should be taken in operating. I believe the following is an adequate explanation of this cause of incontinence. The anal sphincter has in women a weak point in the perineum, and its division at that point may cause a lack of power. Therefore if the inner circular fibre (*see diagram 20*) be divided, the anus is enlarged and the outermost decussating fibres by their contraction cannot completely close the anal orifice.

Examina-
tion

Now what do we observe on examining a patient affected by the ailment we are discussing? In Condition I. there is a deep sulcus, perhaps unhealed. On exploring the bowel we notice that the anus is very large, and that it is constantly contracting from the patient's perception of a sense of weakness therein, and the mucous membrane may perhaps be prolapsed or a pile appear outside. On introducing the finger, there is little or no resistance; the anus can be easily dilated. The muscles are not firm, broad, and contractile, but are weak and narrow.

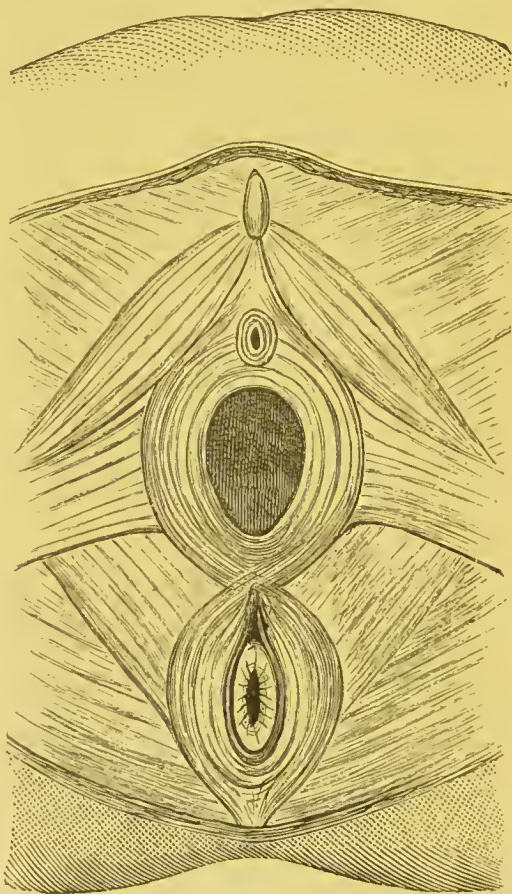


FIG. 20.

Moreover, at the point where the deep incision has been made, the tissues may be hard and cicatricial and no contraction of the muscles can be felt. It is here that in the earlier stages the leaking takes place, but later on, from weakening of the muscles, it may occur at any part of the anus.

Condition II.—On examination two cicatrices are seen and felt, one on each side of the bowel, or two on one side only.

The finger can also detect the same loss of power and lack of consistence of the muscles as in the previous state ; but here two points are felt at intervals in the circumference of contractility. In fact the muscles have been divided into small segments, and the sphincters, as a whole, have been proportionally weakened.

In Condition III.—there may be little shown externally, and indeed little discovered on examining with the finger, except that you may feel from the scar that the fistula was

perineal, and in some cases may perceive that the anus is drawn too far backwards.

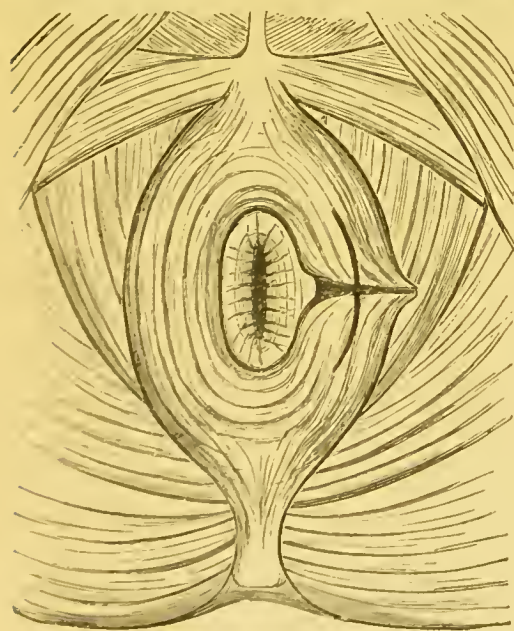


FIG. 21.

After having examined the patient and made your diagnosis as to the cause of incontinency, the question arises as to which operation is the preferable one to perform. Having carefully considered this from all points and made your choice, you should then warn

Diagnosis

your patient that, though one single operation may succeed, many may be necessary, and that even then several months may elapse before a satisfactory result is brought about ;



for the tissues take time to contract and the patient must become accustomed to the new state of affairs. One thing, however, you may safely promise—great improvement is sure to accrue, and there is every probability of a radical cure of this distressing state.

Operations

There are many plastic operations that I have tried in these cases, but nothing succeeds so well as the application of the actual cautery.

Operation ;
Condition
I.

In the case represented by diagram 21, when the fistula is cured and the wound well healed, the everted and separated ends of the muscle may be freed and the sulcus lessened in depth by dividing thoroughly across the old scar and allowing the wound to heal from the bottom.

Operation ;
Condition
II.

In Condition II. the application of the cautery to be hereafter described, affords the only hope of success.

Operation ;
Condition
III.

In Condition III. Lawson Tait's operation upon the perineum may be performed, but the flaps should be turned into the rectum and sutured together, thus narrowing that orifice. But the method my father and I have found most satisfactory in all cases, and the one I shall adopt

Actual
cautery

in the future, either alone or combined with other methods, is as follows.

With the patient in the lithotomy position, I first ligature any lax mucous membrane, or remove piles, so

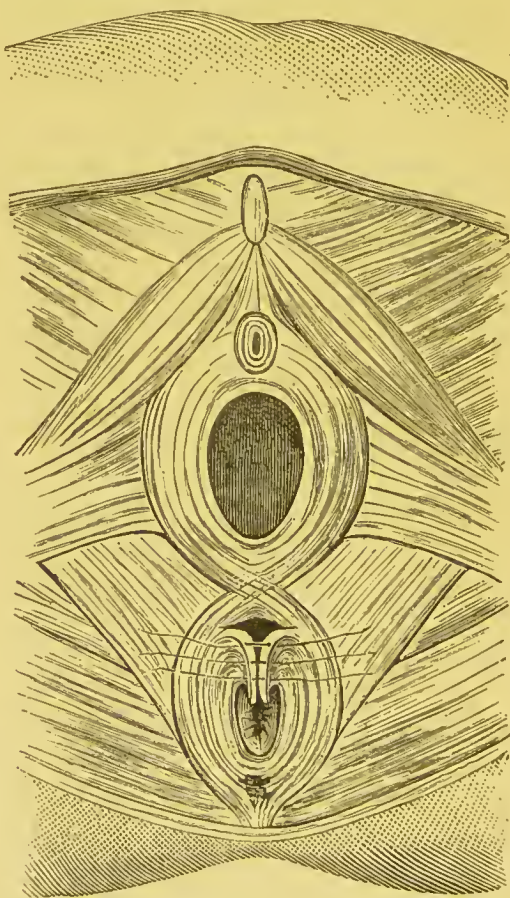


FIG. 22.

as to tighten all the upper part of the bowel, and then with the Paquelin cautery burn deeply into the external and internal sphincters in several places, at the same time cauterising the old scar or scars, and burning deeply into the tissue just around the anus. When the operation is completed I dress the wounds with wool thoroughly saturated with olive oil.

The cicatrix resulting from a burn is followed by very great contraction and consequent drawing in of all the surrounding tissues, whereas a scar caused by the use of a knife does not contract nearly so much. I can offer no explanation of this, except that after burning there is more extensive destruction of tissues, and thus a formation of a lowly organised and contracting scar. For the cure of these cases it is very fortunate this is so, for, by burning, large sloughs are made, and when they separate the resulting cicatrix contracts, the anal orifice is narrowed, and power over the fæces is obtained. The after-treatment of these cases requires great attention: the dressing must be carefully done, and the daily passage of the finger may be necessary, so as to keep the contraction within certain bounds. Yet it is astonishing how rapidly complete power over the sphincter is recovered. The reason, I imagine, is that the firm cicatricial tissues caused by the burn afford a sure basis from which the segments of the sphincters between the burnt islets may contract and thus gain in power.

Result of
use of
cautery

I should always advise patients who have undergone this operation to keep their motions fairly liquid, and if the bowels do not act for two days, to at once administer an enema, so as to break up any hard motion that may be obstructing the passage. Of course impaction in these cases would cause much trouble, in consequence of the somewhat contracted orifice. If a simple enema should not prove effectual, I would counsel the patient to use an enema of oil and fresh ox-gall, of each 3 ozs. The latter ingredient is very valuable, as it acts upon the hardened fæces and tends to dissolve them. Should this, too, fail, a medical man must be consulted.

After-treat-
ment

In the last eight years my father and I have had many successful cases, and our patients have been only too thank-

ful for their safe delivery from an excessively miserable condition, miserable both to themselves and their friends.

To illustrate the success attending this operation, I will relate two typical cases out of many that have been cured by us:

Cases

CASE I. H. R——, aged 32, came to consult me, giving the following history: When in South Africa a large abscess had formed in the right buttock. This was opened, and a fistula resulted. He came to England to place himself under the care of a surgeon connected with one of the large hospitals, and was operated upon. After the operation he lost all power over the anus, and passed flatus and fæces without the slightest warning. On examination I found a large, deep scar extending from above the internal sphincter on the right side into the right buttock.

The anus was in the state described in Condition I. (p. 57). I explained to him that he could be cured only if he submitted to one, or perhaps more than one, operation. To this he readily consented, as he was anxious to marry, but said he would not do so unless he was freed from this pitiable condition. Placing him in the lithotomy position, I operated upon him, ligaturing four pieces of lax mucous membrane above the sphincters, and then burning into the external and internal sphincters, in front, behind, and at the sides. I also burnt deeply into the old scar. The rectum was then filled with wool thoroughly saturated with oil, and the bowels confined for four days. In eight weeks the wounds had entirely healed, and the anal orifice was considerably narrowed, so that he was able to hold his motions. Three months later he was perfectly well, and returned to the Cape.

CASE II. Captain C——, of Royal Navy, aged 43, said that when in the East Indies he had suffered from dysentery and had had fistula, which was operated on several times. At the last operation it appears, from his description, that the sphincters had been divided on both sides. This was followed by incontinence, on account of which he was invalided home. He said that if this could not be cured, he would have to retire from the service, as his position compelled him to entertain. This, in his present condition, he could only do with extreme discomfort.

On examination I found on the right side the scar of an old fistula, and on the left side a similar cicatrix. From the latter a sinus ran up the bowel. The anus was large, and there was loss of power over the sphincters. This case exactly typifies Condition II., described on p. 59.

He was operated upon, the sinus being laid open and deep burning made into the scars and into the sphincter in several places. In two months' time he had greatly improved; but as he had not obtained complete control over those parts, he was operated upon again, and the mucous membrane above the sphincters well cauterised. In another two months he returned to his ship quite cured.

CHAPTER VII.

FISTULA IN CONJUNCTION WITH PHTHISIS.

FROM a surgical point of view I wish to consider phthisis as a complication of fistula. It would doubtless be more correct to regard fistula as one of the complications of phthisis, but I think it better for my purpose to put it in the way I have.

Opinions as to the conjunction of fistula and phthisis

This subject is one of considerable importance, and has scarcely, I think, received from any author the attention it deserves. The majority of writers upon fistula have simply expressed the opinion that in phthisical patients no interference should be attempted with the fistula, generally contenting themselves by stating that if any operation be performed the wounds will not heal and the patient's life will be shortened. It is the opinion of some eminent men that fistula has really the power of arresting, or at all events retarding, the chest affection, and on that ground they would deprecate any operation. This opens up a very interesting question, which I shall endeavour presently in some degree to pursue.

There are other authorities of great experience in consumption who have expressed the belief that the co-existence of fistula and phthisis is by no means a common one. Andral and Louis both state that they had very rarely observed a conjunction of the diseases. Andral, in fact, says that, out of 800 patients affected with phthisis, he noticed only one case of fistula. According to Louis, tubercular ulceration is very common in the small intestine, and but very rarely found in the colon and rectum. The same doubt as to the prevalence of fistula in phthisis has been expressed to me by eminent physicians whose oppor-

tunities of seeing pulmonary affections have been most extensive. Upon this point I beg to make an observation: I have not the slightest doubt that there are immense numbers of phthisical persons in whom no fistulæ exist, but I have also no doubt that there is a very large number of cases of fistula in which there is tubercular disease of the lungs.

A patient with disease of the lungs going to any of the hospitals for phthisis does not say anything about his fistula to the attending physician—he speaks only of his chest; but the same man comes to me at St. Mark's saying that he has a fistula; I perceive, perhaps at once, that he is consumptive. Of course the physician cannot see that the phthisical patient has a fistula, and the question is very rarely put; of this I am certain, as patients say, 'I am attending at such a hospital for my cough.' When I ask, 'Did you tell the gentleman you saw, that you had fistula?' their reply almost universally is 'No, sir, I did not.'

For my own part I am quite convinced that a very considerable percentage of fistulous patients have more or less of tubercular lung-affection, latent or active. I have endeavoured to ascertain what the percentage is, and I have carefully gone over a period of ten years in private practice, from 1871 to 1880 inclusive, and I find that out of 1,632 cases of fistula seen by me during that period, 234 had phthisis either active or latent, or such symptoms as foreshadowed the appearance of phthisis—such, for example, as narrow and flat chests, winter cough, continuing long through the spring, proneness to take cold, feeble circulation, and incapability for sustained physical exertion, also that facial expression which is not uncommon; and I will add that a bad family history was frequently co-existent.

I will here quote the opinions of those entitled to respect on the question of operation on phthisical patients.

Dr. Bushe, of America, in his really admirable treatise observes: 'It is very apparent that a great many fistulæ depend upon disease of the lungs, therefore we should not

operate upon them, else the healing will give rise to an increase of the pulmonary disorder and curtail life.'

Mr. Quain says, 'When the symptoms of tubercular disease of the lungs are present the operation for fistula is not allowable.'

Mr. Curling does not express any opinion upon the question of operation, although he notices the frequent concurrence of the two maladies.

Mr. Erichsen in his 'System of Surgery' objects to the operation save in a few picked cases.

In Holmes's 'System of Surgery' the subject is dismissed with this observation: 'If a fistula be cut when a patient is suffering from phthisis, the wound, in the majority of cases, will not heal.' This I am bound to say is not my experience.

Miller says, 'In phthisical cases the wound in all probability would not heal, and supposing that it did heal, the result would probably be most injurious on the system, the pulmonary disease advancing with fresh virulence on the closing up of an outlet whence purulent and other products had been long habitually discharged.'

Dr. Theophilus Thomson states that the coexistence of fistula with phthisis appears to retard the progress of the latter disease, acting as a derivative.

In the recent works on phthisis to which I have had access there is no reference made to the subject I am treating.

Dr. Bristowe, while mentioning the frequency of tubercular ulceration of the large and small intestines, does not allude to fistula in conjunction with phthisis.

When we find an opinion so decidedly and generally expressed by men of acknowledged ability and experience of the subject on which they treat, we very naturally and properly hesitate to call in question their judgment; but, on the other hand, we should never be prevented from inquiring carefully and diligently as to the grounds upon which that conclusion has been based; and should opportunities present themselves we should test whether the opinion is founded on fact. I have always thought that

Discussion

a universally widespread belief, though perhaps exaggerated or distorted, has some considerable element of truth which had served for its origination, but, at the same time, there is nothing more likely to lead to error and stifle the spirit of inquiry than a too easy acquiescence in what may be called 'popular creeds.'

It must be obvious to everybody that to operate upon a patient with confirmed and advanced tuberculosis would be a positive cruelty, and would undoubtedly hasten his inevitable fate; but there are different forms of phthisis, some evidently not so destructive as was formerly imagined; and we know that many persons whose chests at one period of their lives exhibited undoubted signs of breaking down of pulmonary tissue, the formation of cavities, &c., ultimately recover, and attain a fair old age. Every surgeon who has been much in the post-mortem room must be familiar with the fact that, in old persons who have not died of phthisis, repaired vomicæ and cretification of deposits, probably tubercular, are not uncommonly found. I am quite certain that there are many sufferers from lung affections complicated by fistula, who, because they are said to be phthisical, have nothing done for the cure of their fistulæ, and whose lives, in consequence, are rendered much more wearisome and wretched than they might have been if an operation had been judiciously performed.

Assuming, as I think we safely may, that many patients, the subjects of fistula, have also a tendency or predisposition to phthisis, it will not be unprofitable to consider for a moment why this should be the case. The conjunction has been ascribed to tuberculous ulceration of the bowel, and no doubt, in some cases, this opinion is correct. I am quite sure now that many cases of incurable ulceration in the rectum are tubercular, this portion of the bowel when examined after death presenting precisely similar conditions to those which are found in other parts of the intestine well known to be thus affected. The ulcers are deep, and spread at the edges, joining others, and undermining the mucous membranes, leaving broad or narrow bridges. In this form

of ulceration, as a rule, pulmonary phthisis does not co-exist, or, at all events, only shows itself very late in the disease. In a young gentleman I saw several times with Sir James Paget and Sir William Gull, the ulceration was very marked, and extended high up the rectum, but no chest affection became apparent until three years had elapsed from the commencement of the bowel disease. In the many cases of phthisis I have seen in which fistula formed, there has been no diffused ulceration of the rectum, possibly because the disease spent itself mainly upon the lungs; and in the case of tuberculous ulceration of the rectum, anal fistulæ are not common.

The rule in my opinion is, that fistula in patients who have a predisposition to pulmonary consumption commences by a breaking down of the connective tissue beneath the mucous membrane of the rectum; thus a small abscess is formed, and this makes its way into the bowel very rapidly, leaving a large patulous aperture. Therefore, I think we may safely say that the same condition of health or constitution which renders a patient liable to pulmonary affections generally, renders him also prone to fistula. These people are usually thin and ill-nourished, and have very little power of resistance against injurious influences; inflammation, which in robust individuals would result only in the effusion of plastic material, in them terminates in the production of numerous and very perishable cells, which readily form themselves into purulent collections, especially in lax tissues. Probably, I should say, the want of fat in the ischio-rectal fossa and its neighbourhood disposes to the formation of an abscess there. The veins have to sustain a considerable column of blood, and they are moreover exceedingly ill supported, so that local congestions and feebleness of circulation must be a common condition.

Fistulæ in persons of a phthisical tendency are marked by certain peculiarities which I think important to notice. Some have been already casually mentioned, but I will here state them clearly.

Peculiarities of fistulæ in phthisical patients

They have a disposition to undermine the skin and

mucous membrane with remarkable rapidity, but not to burrow deeply.

The internal aperture is almost always large and open—on passing your finger into the bowel you can feel it most distinctly, often the size of a threepenny-piece.

The external opening is also frequently large and ragged, not round; it is irregular in form, and surrounded by livid flaps of skin; when you pass your probe into this aperture you can sweep it round over an area of more than an inch, and not infrequently the skin is so thin that you can see the probe beneath.

This is a very different condition from that of the external orifice of a fistula in a healthy person, which is usually small and *pouting*, and the skin is not detached to any extent from the underlying structures.

The discharge is thin, watery, and curdy, very rarely really purulent.

The *sphincter museles* are almost invariably *very weak*. When you introduce the finger into the bowel you are hardly sensible of any resistance being offered. I think this a most important indication of constitutional weakness, and from it I derive this practical lesson: *When operating upon a patient with phthisical proclivity interfere as little as possible with the sphincter museles, especially the internal.* If you divide the sphincter, incontinence of fæces will almost certainly result.

It is common to observe in these patients much longish, soft, silky-looking hair around the anus.

With any of these peculiarities strongly marked, I am always suspicious of my patient's strength; with all of them, or several of them present, I feel certain of his condition and act accordingly.

Varieties of
phthisical
fistulae

I have noticed three varieties of fistula in conjunction with phthisis or phthisical tendencies. They may be termed, for operative convenience, the fistula with tuberculosis, fistula in conjunction with chronic phthisis, and a fistula which occurs in patients with a family tendency to phthisis, viz. some of its members have actually had phthisis, and others have suffered from strumous joints or

glandular disease. I should call this case the strumous variety of fistula.

Now, when a consumptive patient consults me, I think it most important to discover from which of the varieties he is suffering. If he is acutely tubercular and probably cannot live long, an operation is decidedly contra-indicated, or if any treatment be employed it must only be in the direction of affording relief from a fistula which is giving rise to great pain.

Importance
of discover-
ing variety

For this kind always follows from some tubercular ulcer of the rectum and develops into a fistula with a large internal opening, into which fæces pass. Not for one moment would I think of curing, or attempting to cure, this condition. All that is desirable is to make a large external opening (but not to divide the sinus) through which the retained fæces may escape and afford relief. This should be done without keeping the patient in bed for even one day, and if an anæsthetic be given chloroform should be employed, and that only in sufficient quantity to lull the pain while the opening is made. This treatment enables the poor sufferer to end his days in comparative peace.

Treatment
in tubercu-
lar

What I have termed the second variety comprises those cases of fistula in patients who have had hæmoptysis and may at the time of consultation have the remains of a cavity or consolidation at the apex of the lung without any very active symptoms of phthisis. It is in these cases that the fistula begins in the bowel or just at the entrance to the anus and burrows outwards and undermining the skin, with an internal and a large external opening which has unhealthy, overlapping, livid skin. Judicious active treatment is here called for; it must stand to reason that the patient's body should, as far as possible, be restored to a healthy condition, in order that the lung may have a chance of recovering. The drain upon the system which the fistula exerts, together with the mental worry, necessitates interference.

Treatment
in chronic
phthisis

As previously mentioned, the anæsthetic best to administer in these cases is chloroform, for it does not irritate the air-passages, and minimises the secretion of mucus;

Anæsthetic
to be used

whereas ether is an irritant to the respiratory passages, increases the secretion of mucus, and may cause congestion of the lungs, cough, and in delicate chests pneumonia.

I commence the operation by laying open the main sinus, but avoiding the sphincter as far as possible. Fortunately it is not usually necessary to cut deeply, as the sinuses are generally superficial. I then cut off the edge of the unhealthy skin and scrape the base of the sinus with a Volckmann's spoon, being careful not to allow the patient to lose much blood. I do not keep him confined to his bed, but let him get up the next day. In fact, as far as practicable, I cause no change in his ordinary way of life.

After-treat-
ment

After the operation let the patient have good diet; by all means, plenty of cream and milk; if he can take it, he may have a little cod-liver oil and steel and quinine, separate or combined; if you can manage it let the bed-room face south or west, and get plenty of fresh air into the room, the patient lying well covered up on a couch by the open window for hours, in fact, nearly all day. Do all you can to keep him amused and cheerful; avoid poulticing the wound; disturb it as little as possible, keep it clean by gently syringing with a solution of carbolic acid (1 in 40) night and morning, and well dry afterwards; dress with wool; ointments as a rule do not suit, but astringents are useful. Do not be in a hurry to get the bowels open, and manage this rather by diet and laxatives than a purge; if you set up a diarrhœa in these patients, it will give you trouble and delay the healing of the wound. Unless there is furring of the tongue, headache, or loss of appetite, I do not think the bowels need be relieved more than once in three or four days. All these matters may appear so trivial as to be almost unworthy of mention, but I am sure that attention to apparent trifles will make just the difference between success and failure with these patients.

Treatment
of strumous
fistula

The strumous variety of fistula may, or may not, have an internal opening, and generally commences as a chronic abscess, quite painless and filled with curdy pus. Although some member of the family may be consumptive, there are no perceptible signs of this in the patient himself.

I do not hesitate to operate upon such a fistula, for it (like suppurating glands in the neck and strumous testes) may be at first a purely local disease, and should be at once attacked, instead of being allowed to remain, and so perhaps become the starting-point of acute tuberculosis.

You can operate upon this kind as you would on an ordinary fistula, but you should give especial attention to all minor details mentioned above.

Those gentlemen who object to operating in any case upon a phthisical patient give different and rather contradictory reasons for their objections. Some say, 'Do not operate, for the wound will not heal, and the *increased* discharge will be detrimental;' others, 'The *healing* of the fistula will be injurious to the patient, as the discharge prevents or retards the progress of the chest affection.' I have this remark to make here; that when a fistula has kindly healed I never knew a phthisical patient to be directly the worse for it, *i.e.* I have never seen the chest affection aggravated or suddenly get worse on the *closing up* of the wound. I think the idea that the discharge retards the progress of the lung disease is rather a remnant of the old doctrine of issues, setons, and derivatives, than a positive fact.

Advantages and disadvantages of operative treatment

For my own part, I do not think we have many, if any, clinical facts tending to show that an operation for fistula in phthisical patients renders the lung affection worse, or makes it more rapidly progressive.

I have had several cases, which certainly at *first sight* appeared to contradict what I have just stated: the patient is operated upon, and in four or five days inflammation of a lung and hæmoptysis set in, this being in some cases the first attack. Now, one is not unnaturally led to conclude that the operation is the active cause of the sudden accession of the lung symptoms in these cases; but after all it may not be so; there are other factors to be considered. These may be mentioned: the natural excitement preceding and attending the operation; the effect of anæsthetics; the different, and probably colder and 'draughty,' air of the hospital wards; and the *sudden taking to the*

recumbent position, by which, in lungs predisposed to disease, hypostatic engorgement may be readily set up, and pneumonia follow. This last I think a very important element in the phenomena; and, as I have said, never confine your patients who have a consumptive tendency entirely to bed. I let them recline on the sofa, and sit on air-cushions from the day of the operation, and I really think this precaution has a great deal to do with the result. You may accept it as a fact that phthisical hospital patients do not do nearly so well as phthisical private patients; and good feeding, nursing, and the comforts of a home may be credited to a great extent with the causation of the difference.

Although I say that hospital patients do not, as a rule, do well, yet I have had many satisfactory results, even where such could hardly have been anticipated. I will detail some.

Cases

A man, *æt.* 29, was admitted into the hospital under my care; he had decided dulness at the apex of the left lung, and had spat blood frequently, and always had winter cough. He had a complete fistula, with a very patulous and large internal orifice, into which *fæces* were constantly passing, and he consequently suffered much, and was very anxious to obtain relief. On this ground I determined to operate. I did not confine him to bed more than a few days. I fed him well, and gave him cod-liver oil and tincture of the muriate of iron during the treatment, and I kept him in the hospital only for nine days. He did very well, the wound healed, and as I have seen him since, I know that his chest affection has not progressed.

Here is a very unfavourable case which, by a little cautious treatment, did well in the end.

A police constable, *æt.* 29, came to St. Mark's one summer. Eight weeks previously he had been operated upon for fistula at St. Mary's Hospital. He was undoubtedly consumptive; some time ago had hæmoptysis; he sweated at night, and was very thin and feeble. On examination an unhealthy wound was to be seen involving the bowel; the edges overhung were livid and irregularly ulcerated; the mucous membrane of the bowel was undermined to the extent of two inches upwards. A deep incision had been made through the sphincter, and he had no power to retain wind, or his motions if at all relaxed. He coughed a good deal, and expectorated freely; he was very depressed in spirits. It is difficult to conceive a more lamentable failure of an operation; he was in all respects materially worse for what had been done. I scarcely think, had I seen the man at first, I should have

interfered with him at all. The question was what could be done. Finding that he had friends in the country I advised his going away, and told him to live in the open air all day long, to drink as much milk and cream as his stomach would digest, and to take a teaspoonful of cod-liver oil, and fifteen drops of the muriated tincture of iron, three times in the day. He had never been able to take the oil, but I managed to overcome his repugnance by giving him one drop of nitro-benzole with every dose, for which hint I am indebted to my friend Dr. Stone of St. Thomas's Hospital. The patient came back in about six weeks very much improved in general health; he had gained weight and strength. His wound looked healthier, but intrinsically was in much the same condition. I now did not dare to take him into the hospital, fearing the confinement and air; but I thought something might be done to alleviate his condition; so I pared off the overhanging and devitalised edges of the skin, and laid open the sinus under the mucous membrane; I did not confine him to bed at all. A few days after doing this I painted over the sluggish base of the wound with blistering fluid, and thus got the whole wound to granulate. After about five weeks it healed; he recovered very considerable power in the sphincter, and altogether was in a wonderfully more favourable condition than when I took him in hand. To show what an improved state of health he was in I can state that he was able the whole of the following winter to take his turn of night duty without being once on the sick list.

The mental depression which the rectal affection creates sometimes occasions me to operate (when I would rather leave it alone) on comparatively painless fistulæ in patients with active phthisis. For frequently the sufferer thinks much more about his fistula than he does about what he calls 'his little cough,' and is quite dismayed and brought to despair when you tell him that you cannot do anything to cure him. I am certain that few things conduce more to the rapid progress of phthisis than mental anxiety and loss of hope.

As illustrating this I will relate the case of a young man who came to me at St. Mark's.

He was in great mental distress because of a fistula for which, a well-known surgeon had told him, nothing could be done as he was consumptive. It was true that this man suffered from hæmoptysis sometimes, and looked far from being a promising patient; moreover his family history was unsatisfactory. On examining him I found that his fistula was evidently a phlegmonous one, and not scrofulous, *i.e.* it began as an abscess, ran an acute course, opened externally, and

Mental depression necessitating operation

Cases

did not communicate with the bowel; so I thought, considering his mental distress, it would be better to operate upon him. The mere fact of his belief that he would get rid of a most troublesome and annoying disorder rallied him at once. The day following the operation he looked much better than he had done before, and without any interruption he quickly got well. I watched the man for more than twelve months, and most assuredly his lung symptoms had made no marked advance.

I relate cases which occurred some years since, because we have the opportunity of seeing how they terminated.

In the spring of 1866 I operated upon a gentleman, a patient of Mr. Burroughs, of Lee. He was decidedly but not hopelessly phthisical; the undermining of skin in this case was very considerable, and he suffered so much that I had not the least doubt about the propriety of attempting to relieve him. The wound was large, but we had really no difficulty in getting it to heal. I saw a relative of this patient some years after who informed me that he continued well and had no return of the fistula. I believe in this case the chest symptoms were absolutely benefited by the operation.

A young man was brought to me by his friends. He was twenty years of age, and had a decidedly phthisical appearance; he had a circumscribed flush on his cheeks; was thin, and had a rapid, feeble pulse; he was a railway clerk, and had been leading a rather irregular life for twelve months previous to his present illness; he had never suffered from hæmoptysis to any extent, but had spat mucus streaked with blood not infrequently. There was some dulness over the apex of the left lung, and feeble inspiratory murmur. He took cold on the slightest provocation; he had lost a sister by consumption, and also his maternal aunt; his mother was far from a healthy-looking woman; but his father was strong and had no tendency to pulmonary disease. This was a case I would willingly not have interfered with; but the patient was suffering so much that I determined to try, after improving his health, what I could do for him. The fistula commenced as an abscess, which opened spontaneously. When I first saw him, he had a sinus on one side of the bowel and an unopened abscess on the other side, and was suffering a good deal of pain. The abscess I opened at once. I put him on cod-liver oil and tinct. ferri muriatis, and soon sent him away into the country. He returned very much better in health, but the sinus had burrowed round behind the anus and joined the abscess I had opened, thus forming the not uncommon horse-shoe fistula. He was now importunate for something to be done, and although I was very dubious about the result, I yielded to his wishes. There was one good point in his case which encouraged me, and that was, the discharge was tolerably healthy. I operated, not making more incisions than were necessary, but freely removing the overlapping edges of skin. He took full diet—wine, beer, and anything

he fancied—from the day of the operation, and (with the exception of a little burrowing under the skin towards the perineum, which I was obliged to lay open) he made a good recovery. Six weeks after he was quite well, and was weighed, and showed an increase of *fourteen pounds* since the operation. This lad died of phthisis three years after. The fistula never recurred, and for more than two years he enjoyed fair health.

A good many years ago I operated upon a patient who was a very delicate and decidedly consumptive person; he suffered much from winter cough, and had spat blood several times; there was a history of phthisis in his family. His fistula was a complete one and caused him a great deal of pain and inconvenience, interfering most materially with his taking any walking exercise. I operated upon him, and was a few weeks later compelled to lay open another sinus, which had either formed since or been overlooked by me. The wounds were slow in healing, and required a good deal of attention, but finally they cicatrised soundly, and the patient's health was much benefited by his freedom from pain and his renewed capability of walking. I saw this gentleman lately; he is still delicate, but enjoys a fair amount of health, and the fistula remains still healed:¹ most assuredly he has not been damaged by what was done for him.

I operated some years ago upon a patient who was under the care of the late Dr. Palfrey and Dr. G. Fowler of Kennington. This gentleman had undoubted phthisis, with vomicae in his lungs, and at the same time he suffered so much from an internal fistula with a large opening that I felt compelled to try and relieve him. Accordingly, with the concurrence of Drs. Palfrey and Fowler, I opened the fistula. The wound slowly but surely healed, and from the day of the operation he lost his pain, and lived about two years in comparative comfort—a longer time than was anticipated by his medical attendants.

I saw, in conjunction with the late Dr. Wilson Fox, a gentleman about 28 years of age, who had been some time in India, and who had suffered from pleurisy and pneumonia, associated with the deposit of tubercle; he also had a complete fistula, which gave him great inconvenience and, at times, pain. He was very anxious to have something done for this, and Dr. Fox, as his lung condition was stationary and no active disease present, was of opinion that there was no objection to an operation on the fistula; I therefore cut through the sinus with the elastic ligature without occasioning the patient any pain or confining him more than forty-eight hours to his room; four days sufficed for the ligature to cut through, and the wound soon healed, the patient experiencing great comfort. After about eight months he caught a cold, and his chest-symptoms recurred, with much cough, and the cicatrix of the wound in the part near the anus broke down, but this did not trouble him much, and from time to time the wound healed and

¹ Fourteen years after the operation.

reappeared; but there was no doubt in the mind of the patient as to the advantage of the operation, and Dr. Fox could not say that any disadvantage had accrued. The patient was one of those men who never will take care of themselves, and who habitually smoke and drink too much. With all those drawbacks, he lived about three years after the operation.

Question of
cough

The question of *cough* is a very important one when weighing the probabilities of an operation doing well or ill. I believe that severe or frequent cough, no matter from what it arises, is most inimical to the well-doing of the patient, and must warn you that phthysical patients will often assert that they cough very little when their friends notice that they do so almost perpetually.

A medical man came from the country a short time ago to be operated upon by me for a complete fistula; there was not the least suspicion of phthisis, but he had a bad cough. I advised him to get rid of his cough before being operated on, but he was anxious to get the matter over, and thought his cough would not trouble him. However, although the fistula was a simple one, I could not get it to heal until his cough was cured, and he was four weeks in town, whereas, under favourable circumstances, fourteen days would have been ample time to have effected the cure.

From this arises a maxim I always adhere to: never, if you can possibly help it, operate upon a phthysical patient when the cough is constant; and never operate in unfavourable weather. If your patient is in good circumstances send him to some salubrious, genial place, and perform the operation there. You will find he will get well in less time, and possibly save you much anxiety.

Recapitu-
lation

To recapitulate. In acute phthisis in which the fistula causes great suffering, you should only adopt palliative or mild operative measures, the latter being directed to the relief of pain.

In fistula associated with chronic phthisis an attempt may be made under favourable circumstances to effect a cure.

In what I have described as a strumous fistula, an operation should be performed in order to remove a possible source of general disease.



CHAPTER VIII.

HÆMORRHOIDS.

ALMOST from time immemorial hæmorrhoids have been divided into two varieties, viz. the external and the internal, often also popularly called blind piles and bleeding piles; and this classification is founded upon a true pathological distinction; for, although it may be correctly said that external piles may and do encroach upon the mucous membrane, and so are partially internal, and further that internal piles, by reason of frequent prolapse, become more or less external, yet in the majority of cases the difference is well-marked, and precludes the slightest doubt as to the diagnosis.

In the *external* form the observer will perceive that they are either true hypertrophies of skin, exaggerations of some of the natural rugæ around the anus, or rounded or elongated venous-looking tumours which are situated at the verge of the anus or pass up into the bowel.

External
piles

In the *internal* kind he will observe that they are tumours originating within the anus, but which can be forced down outside, and even may have put on a pseudo-cutaneous appearance from exposure; having been, for more or less time, subjected to the same conditions as the skin. He may also find a combination of these two classes, viz. : an internal pile may join hypertrophied rugæ.

Internal
piles

Complicated
piles

Should the surgeon have any doubt as to the kind of hæmorrhoid he has to deal with, let him return by gentle pressure all the protruded part that he can within the sphincter ani—at the same time directing the patient to retract or draw up the lower part of the gut. He will then find out what is redundant skin, and what is internal

hæmorrhoid and prolapsed mucous membrane of the anus. If all can be reduced it is a case of internal piles (dia. 23);



FIG. 23.

if none, it is a case of external piles (dia. 24). Should only a part of a pile be returned, and the rest remain outside,



FIG. 24.

it is a combination of both varieties (dia. 25), and must be considered as internal piles and treated like them. All these kinds may coexist in the same patient (dia. 26), and then they are to be treated as internal and as external piles.

I have been rather particular in these introductory observations, because I have so often seen considerable doubt in the minds of practitioners as to the character of

the affection they had to combat, and a correct conclusion is all-important, especially if any operative procedure be meditated.

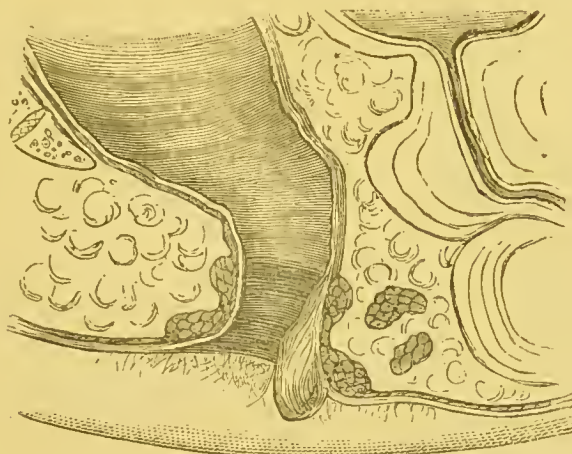


FIG. 25.

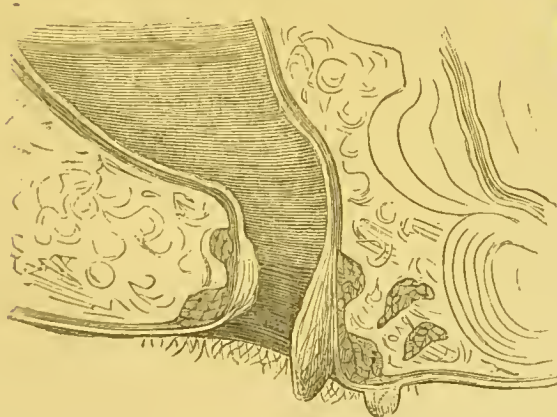


FIG. 26.



EXTERNAL HÆMORRHOIDS.

These affections are so prevalent that very few persons, Causes
 either male or female, arrive at middle age without having
 in some degree suffered from them. They occur almost
 equally in the robust and the weakly, in the rich and the
 poor, in the active and the sedentary. No doubt some
 occupations and modes of life conduce to the production of
 external hæmorrhoids more than others; still, I repeat,
 there is no class of society or state of constitution which

can be said to be entirely exempt. The skin around the anus and the mucous membrane at the verge of that aperture are remarkably delicate in structure, they are also profusely supplied with nerves and small vessels; from these facts it arises that anything tending to irritate that region may readily cause congestion and inflammation of the part, and result in an attack of piles. To certain anatomical peculiarities of structure in the rectum and its veins, supposed to be the predisposing and also the active cause of hæmorrhoids, I shall refer further on.

Obstructions of the liver or portal system, pulmonary or cardiac affections, or anything rendering the return of blood from the rectum difficult, are likely to conduce to the same end. From this we can readily conceive that a great variety of causes may bring on an attack of piles. The following may be mentioned: too good living, especially the consumption of large quantities of meat, very coarse fare, indulgence in alcoholic drinks, excessive smoking, violent and prolonged exercise, sedentary occupation, or exposure to wet and cold. Other causes are faecal accumulations, constipation, often associated with chronic spasm of the external sphincter, diarrhoea, discharges from the bowel resulting from internal diseases, the pressure caused by the uterus during pregnancy, uterine displacement. Again, sitting on damp seats, friction from clothing, excoriation and irritation, the use of printed paper as a detergent—especially the cheap papers from which the ink comes off on the slightest friction—the neglect of proper ablutions (this is very important; many persons seem to forget that the anus requires quite as much washing as any other part of the body), straining, however induced; all these are among the common causes, predisposing or exciting, of external hæmorrhoids.

I have already said that two varieties of external piles may be recognised; the first ought to be called hypertrophies or excrescences of the skin; the second, sanguineous venous tumours. When you look at either of these in an uninflamed state, you would think them harmless enough; in the one case you would observe around the anal orifice merely a

Varieties of
external
piles

certain redundancy of the skin forming little flaps or tags more or less pendulous, in addition to the small radiating corrugations seen in the normal state; in the other case you perceive blue veins, rather raised above the surface, and running up into the bowel, resembling, indeed, varicose veins. Now these conditions, so innocent in their appearance, are prone, at a very trifling provocation, to take on active inflammation, and to cause the patient an amount of suffering quite disproportionate to the pathological appearances.

Venous
piles

There is a difference of opinion as to the formation of these venous tumours, why I do not understand. For the rectal veins are similar to veins in any other part of the body, and in like manner may become varicose and inflamed.

A rectal vein becoming varicose is tortuous and dilated in parts. From some constitutional or local cause a clotting of the blood in the vein may take place, giving rise to simple thrombosis; hence the tumour. This may remain quiet, and cause no pain, but only discomfort. Again, inflammation may start around the vein, or in its coat, occasioning periphlebitis or phlebitis. This is the painful kind of sanguineous external pile, and may subside or suppurate.

Formation

In rarer cases, as in other situations, a rectal vein may become weak at one point and cause a small aneurism of the vein, in which coagulated blood is contained.

It is very advisable to notice the earliest, or rather the premonitory, symptoms of one of these attacks, as by this knowledge it may possibly be warded off, or at all events much mitigated. Not infrequently a little extra eating and drinking, without any absolute excess, is the exciting cause; an indulgence in effervescing wines or full-bodied ports or new spirits being especially dangerous. The earliest symptom is a sensation of fulness or plugging up, and slight pulsation in the anus; there is also a tendency to constipation, inducing a little straining; this is frequently followed by itching of a very annoying character, coming on when the patient gets warm in bed, keeping him awake for some time, and inducing him to scratch the part. In the morning he finds the anus a little swollen and tender, and if he be

Early
symptoms
of

an observant person with regard to himself, he will notice after a motion a slight stain of blood. Now all this may pass off with the simplest care and the slightest medication; but if the patient neglect himself, it will surely be the precursor of a more or less severe attack.

Palliative
treatment

The treatment in such a case should be abstinence from active exercise, rather spare diet, well-cooked vegetables and fish, not much meat, no beer or spirits, and wine is not desirable; if the patient must take some stimulant, a glass of light claret, with Seltzer or Vichy or Vals water, will be the best beverage. If he is a smoker, he must cut down his usual allowance; smoking often causes a sympathetic irritation of the throat and rectum. He may take a warm bath, or a Turkish bath, and should wash the anus night and morning with warm water and Castile soap; after this, apply one of the following ointments:—

R Acid. tannici Glycerinum

R Bismuthi subnitratis	3ij
Hyd. subchlor.	3j
Morph. acetatis	gr. iv
Vaseline	3j—M.
R Liq. plumbi subacetatis	3j
Liq. opii sedativi	3ss—M.

One teaspoonful of the lotion to be mixed with one wineglass of milk, and frequently applied to the anus. This is very soothing.

As to medicine, the patient may take

R Pil. hyd. subchlor. co.	gr. ij
Ext. belladonnæ	gr. $\frac{1}{6}$
Ext. taraxaci	q. s.—M. ft. pil. j

or

R Podophyllin.	gr. $\frac{1}{4}$
Ext. nuc. vom.	gr. ss
Ext. bellad.	gr. $\frac{1}{4}$.—M. ft. pil. j

three times a day, and in the morning, fasting, some effervescing citrate of magnesia, or this draught, which I have found very useful on many occasions:—

R Liq. mag. carb.	. . . . .	℥ss
Potassæ bicarb.	. . . . .	℥j
Syrupi sennæ	. . . . .	℥ij
Sp. ætheris nit.	. . . . .	℥ss
Aquam ad	. . . . .	℥ij—M.

or

R Mag. sulph.	. . . . .	℥j
Pot. nitratis	. . . . .	gr. xv
Syrupi sennæ	. . . . .	℥ij—M.

in water every morning. One third of a tumbler of Friedrichshall water taken fasting, with twice as much warm water, or Carlsbad salts, will also have a good effect.

If the case be neglected, and advice is not sought, active inflammation will set in, and the symptoms will be as follows:—

Inflamed
external
piles

When the piles are formed of hypertrophied skin, the small tags will be much increased in size; they may be very swollen, œdematous, and shiny; they are exceedingly painful to touch; sometimes they ulcerate, or suppuration may take place if the inflammation runs very high, and hence small but painful little fistulæ arise. At times the œdema is so considerable as to extend into the bowel, and form a large swollen ring of skin and everted mucous membrane all round the anus.

So with regard to the sanguineous venous hæmorrhoids, they are swollen into ovoid or globular bluish tumours, very hard, and exquisitely painful; they can be pinched up between the finger and thumb from the tissues beneath, and they feel as if a foreign body were present there. Sometimes, but rarely, they can by gentle pressure be emptied of their contents; but this proceeding is not followed by any benefit to the patient, as in a few hours they become more painful and larger than before. Moreover, the attempt to empty them is extremely dangerous, as a clot may be dislodged and fatal results ensue. These tumours may be single, or two or three may be present at the same time; by irritation they set up spasm of the sphincter and levator-ani muscles, so that they are drawn up and pinched, thus adding much to the patient's suffering. Just as he is falling to sleep a spasm takes place, and

wakes him up—in addition there is a constant throbbing, and the sensation as if a foreign body were thrust into the anus; this excites the desire every now and again to attempt to expel it by straining, which, if indulged in, of course aggravates the pain. Often the patient cannot sit down, save in a constrained attitude, nor can he walk, and when he coughs the succussion causes acute suffering. When the bowels act, and for some hours afterwards, the distress is greatly increased, and the patient, if not absolutely confined to bed, is quite incapable of attending to his business. Accompanying all this there is general feverishness, furred tongue, and usually constipation. Such, then, are the symptoms of an acute attack of external piles, and if not a serious matter, it is one causing great worry and loss of time, an important point in these hard-working days. Moreover, one invasion predisposes to another. I have known many patients who periodically suffer what I have described.

Treatment

You will save your patient much time, pain, and after-trouble, and ensure a cure, by snipping off the inflamed cutaneous excrescences, or in the case of the sanguineous tumours, by laying them freely open. The tags of skin may be frozen by the etheriser, seized with a pair of toothed forceps, and quickly snipped off with a pair of strong scissors; the pain soon ceases, and the wounds heal readily under any simple dressing. Care must be taken not to recklessly cut away too much skin, or contraction will follow; you must therefore not make quite a clean sweep of it, but take off a portion only; that which is left will contract in the process of healing. The best method of opening the venous swellings is as follows: Pinch up the tumour gently between the finger and thumb of the left hand, transfix its base with a curved bistoury, and cut out; at the same moment by pressure with the finger and thumb the clot may be extruded; place a piece of fine cotton wool at the bottom of the sac, to prevent it refilling with blood, and to allow the skin to contract and the sac to heal from the bottom. If this is not done, the edges will unite and the pile be re-formed. The pain caused by the incision

soon subsides, and the patient makes a speedy convalescence. This incision should be made in the direction of the radiating folds of the anus, in order to facilitate the contraction of the skin. If these sanguineous tumours are not interfered with, the blood in them will in time become absorbed, and they may ultimately form the cutaneous flaps already described. It is always well in these cases to ascertain, by means of an injection, whether there be any internal piles associated with the external; if so they must be attended to, or the patient will probably be made worse by any operation on the external hæmorrhoids.

If the patient will not submit to the operative treatment I have recommended, the swollen parts to be well smeared with

R Ext. opii.
Ext. belladonnæ
Partes equales—M.

and a warm poultice applied. This in many cases gives very speedy relief, and, as a rule, is much more efficacious than cold applications. But sometimes it happens that cold is found by the patient to be more soothing; in that case the lotion of lead and milk already mentioned, or

R Liq. plumb. sub. dil. ℥j
Liq. ext. opii ℥iv
Tr. belladonnæ—℥ij—M.

is useful, or ice may be pretty constantly applied. It does not answer to freeze the piles with the ether-spray, as I have seen recommended, for as soon as the cold goes off the pain is worse than ever. I have never seen much benefit derived from leeching. Some surgeons have insisted that the inflammation should be reduced before removing the piles by excision. I do not think there is any need for this delay. Certainly the parts are very tender and sensitive, but the pain can be overcome by thorough freezing or the use of cocaine, and I am convinced that convalescence is much hastened by cutting into or the removal of part of the inflamed and œdematous tissues, and, as far as my experience goes, no danger of any kind need be apprehended from the operation

if it be properly performed. I much too often see these cases treated by drastic purges and gall-ointment; this, I am bound to say, is not good practice; in the active stage it is harmful to the patient.

Treatment
to prevent
recurrence

I have said that one attack of external hæmorrhoids predisposes to another; it is, therefore, very advisable for the patient so to live as, if possible, to ward off this repetition. Generally he should eat sparingly; and fish, fresh well-cooked vegetables, and ripe fruit should form a considerable part of his diet; he should avoid spirits and beer, and take as little stimulant of any kind as possible; strong coffee and highly seasoned dishes must be abstained from; he should not smoke, or only very moderately indeed; he should take plenty of walking exercise, but it should not be violent nor continued to over-fatigue; he should sleep on a mattress and sit on a cane-bottomed chair, and never omit to wash the affected part night and morning with cold water; lastly, he should keep his bowels acting daily. If this latter object cannot be accomplished without some medicinal aid, he will find

R Conf. pip. nigr.

„ sulph.

„ sennæ—āā partes equales.—M.

a capital remedy; of this one or two teaspoonfuls may be taken every morning, or night and morning if required. I have had great experience in the use of the waters of Friedrichshall and Carlsbad in these cases, and I think them very beneficial, particularly in persons who are prone to congestion of the liver. Another remedy I find admirable, Pulv. liquiritiæ co. ʒj, taken in a wineglass of water, twice or thrice in the week, at bedtime, or the use of one of the mild purgatives I have already spoken of. A steady perseverance in the line of treatment I have suggested will, in all probability, eradicate the hæmorrhoidal tendency.

CHAPTER IX.

INTERNAL HÆMORRHOIDS.

ALL those causes I have mentioned as likely to induce external piles tend also to the production of internal hæmorrhoids, but in addition we may name diseases of the genito-urinary system, the state of recovery from child-birth, and hereditary influences; although constipation is a very general cause, yet piles may occur without any constipation, and be as much of a family idiosyncrasy as any other disease; for it has happened to me to operate at various times on many of the members of the same family, some of the patients being quite young. Causes

During pregnancy external venous hæmorrhoids are frequent, and these may, and often do, pass away after labour, in common with varicosities of the legs and labia vaginæ; but the reverse is the case with regard to internal hæmorrhoids: these most frequently make their appearance after parturition, when all the parts are relaxed and uterine involution is going on. I will not attempt to give any reason for this peculiarity; I only state a fact I have repeatedly observed.

Our French *confrères* for long past have not been at all satisfied with the usually accepted explanation of the etiology of piles, either external or internal. They do not consider that any causes which are occasional can induce such an afflux and stasis of blood in the rectal veins as shall be productive of hæmorrhoids.

Neither, say they, sedentary occupation, excesses at the table, venereal abuses, passive pederasty, the immoderate and prolonged use of enemata, drastic purgatives, nor habitual and severe constipation, can one or all *initiate* true

Verneuil's
theory as
to the
cause of
internal
piles

hæmorrhoids. They therefore, with praiseworthy diligence, sought for the true predisposing cause in the anatomy and physiology of the rectum ; and Professor Verneuil, the distinguished Parisian surgeon, says he has discovered that cause in the peculiar distribution of the veins and the course they take in the coats of the rectum a few inches above the anus. The preparations and dissections M. Verneuil made to illustrate and prove his views are now in the Dupuytren Museum at Paris ; and the correctness of the anatomy, and the deductions made from it, have, say recent French authors, not only been supported, but even proved, by the dissections of Gosselin in 1864, Dubrueil and Richard in 1868, and lastly by Duret in 1877.

I shall endeavour, as briefly and clearly as I possibly can, to place before my readers the anatomy as stated by M. Verneuil, because it is considered to give the reasons for a method of treating hæmorrhoids strongly advocated in France, but, as far as I know, little practised in England :—1st. Professor Verneuil considers that the superior hæmorrhoidal veins *only* are connected with the portal system and solely form internal hæmorrhoids ; external piles being formed from the inferior and middle hæmorrhoidal, which are connected with the general venous system, and do not, or only in the most remote degree, form connections with the superior hæmorrhoidal veins, and thus the two venous systems, portal and general, are practically distinct.

2nd. That the superior hæmorrhoidal veins commence at the upper border of the external sphincter, and lie under the mucous membrane of the rectum. At a definite height of about 4 inches (10 or 11 centimètres) they perforate abruptly the muscular coats of the bowel, and unite to form the five or six large veins found in the meso-rectum ; these then join the inferior mesenteric veins, which pass into the splenic and portal veins, and thus enter the liver.

3rd. Where the superior hæmorrhoidal veins perforate the wall of the rectum, Verneuil claims to have discovered that they pass through ‘*véritables boutonnières musculaires,*’ which muscular button-holes, not being surrounded

by any protective fibroid tissue, have the power of contracting and causing such stasis and congestion in the superior hæmorrhoidal veins as to constitute the 'primum mobile' in the formation of internal piles. Dubrueil further calls attention to the fact, that the muscular button-holes are double and at right angles to each other, the first set being formed by the circular fibres, and the second by the longitudinal fibres of the rectum. These contractile button-holes constitute, says Verneuil, not only the passive, but also the active cause of hæmorrhoids; any intestinal irritation will produce violent and spasmodic contractions of the muscular apertures, and these contractions are communicated to the levator and sphincter ani muscles, and a rapid development of internal hæmorrhoids will take place. Commonly, in addition, those occasional causes (formerly considered as primary causes) come into play, and the small varicosities found at the lower border of the internal sphincter (and present even in infants, say the French) soon become fully formed piles. The practical outcome, from the above anatomy and physiology by the French authors, is very important—viz. that for the cure of the great majority of internal hæmorrhoids, nothing is required but the gentle and thorough dilatation of the external and internal sphincter muscles; no ligature, no cautery, with or without clamp, is wanted, and no immediate removal of the piles need take place. The anatomy of the rectum, given by M. Verneuil, has been known for many years, but only recently (in 1874) has the practice of dilatation been recommended for the cure of hæmorrhoids by that gentleman; and it appears to me that the discovery of that treatment was the result rather of accident than of reflection and deduction from any known anatomy or physiology. The case which opened the eyes of Professor Verneuil to the advantages of dilatation is thus related by him: 'I was consulted by a distinguished gentleman who had for fourteen years suffered from anal pains supposed to be caused by fissure, but they in reality were caused by internal hæmorrhoids which had become prolapsed and irreducible; with this state not only had the patient's pains

Verneuil's
treatment
by dilata-
tion

been redoubled, but he suffered such loss of blood as to bring him near to death; his anæmia was so profound that I considered the usual operative methods too dangerous to be undertaken, and as the sphincters were very contracted I contented myself by dilating them, and from that day the pain and loss of blood ceased, the piles were cured, and did not return.' 'Encouraged by this happy experiment,' says M. Verneuil, 'I hastened to put it into practice in other cases with most excellent result.' M. Fontan a little later, not knowing, I presume, of M. Verneuil's success, also accidentally discovered that forcible dilatation of the sphincters cured hæmorrhoids; for, says he, 'having dilated the muscles for the purpose of curing a fissure in a patient who also suffered from hæmorrhoids (June, 1875), I found that with the cessation of the symptoms of fissure, the hæmorrhoids, the constipation, the daily bleeding, and the prolapsus also disappeared, and I was struck by this un-hoped-for result.' (*Vide* 'Fontan on the Cure of Hæmorrhoids by Forcible Dilatation,' Paris, 1877.)

Criticism
of theory

It would be presumptuous in me to dispute the anatomical facts set forth by Professor Verneuil and endorsed by such men as Gosselin, Dubrueil, Duret, and others; indeed, the dissections that I have been able to make, induce me to concur in the main points set forth by the learned professor; but, with all due deference, I cannot admit as a fact the almost absolute separation of the portal and general venous systems. I am quite confident that in the dissection of morbid specimens, near the anus, you do find a considerable communication between the superior, inferior, and middle hæmorrhoidal veins.

Admitting the existence of the 'button-hole' apertures through the muscular walls of the rectum, I should demur to the deduction made by M. Verneuil, that they cause by contraction an obstacle to the return of blood from the lower portion of the rectum; and, on the contrary, I should infer, that these contractile apertures really play the part of valves to support the column of blood to the liver, and in place of causing stasis, prevent it by opposing regurgitation in congested states of that organ. In the second

place I would rather, in accordance with general physiological principles, infer, that the contraction of the circular and longitudinal muscular fibres of the bowel favours, and does not retard, the upward flow of the blood; and I am not convinced that the physiology of M. Verneuil explains in a wholly satisfactory manner the causes and pathology of hæmorrhoids. In Professor Verneuil's thesis he makes no allusion to the part played by the arteries in the formation of piles; yet I should think no one could fail to note that hæmorrhoids are not merely varicosities of veins, but tumours, into the structure of which considerable arteries enter.

Dealing more fully with the above-cited cases, in which M. Verneuil and M. Fontan suppose that they cured internal piles by dilatation, I would observe that the cure resulted not from the dilatation of the 'button-holes,' which are natural outlets and not pathological, but from the relieving of the impaction, or rather of the accumulation, of fæces. This accumulation occurs when much pain accompanies defæcation, for pain diminishes reflexly the expulsive power and thus the patient never thoroughly empties the bowel. It is well known that any pressure in the belly may cause a varicose vein in the leg or in the rectum.

Therefore, as soon as the spasm of the sphincter is stopped and the bowels act, the pressure is relieved and the varicose condition ceases. This applies differently to the several kinds of internal piles to be presently described; in the venous variety the removal of pressure affords lasting benefit, for it allows the blood to return freely. This treatment is only of temporary benefit in the arterial or capillary piles, for it simply relieves the venous portion of these piles, but does not materially affect the arterial structures, which have become somewhat circoïd or cavernous in nature.

Internal piles present several varieties in appearances, structure, position, and other characteristics: three broadly marked kinds may be observed—viz. the capillary hæmorrhoid, the arterial hæmorrhoid, and the venous

Varieties of
internal
piles

hæmorrhoid; at times all perfectly distinct, at others united in the same patient.

Capillary

The first variety I should describe as small, florid, raspberry-looking tumours, or rather vascular areas upon the mucous membrane, having a granular, spongy surface, and bleeding on the slightest touch; these piles are often situated rather high in the bowel.

In structure they consist almost entirely of hypertrophic capillary vessels and spongy connective tissue, and therefore I think a good name for them is the 'capillary hæmorrhoid.' They resemble arterial nævi very closely indeed in their microscopic structure, except that they are covered externally by a very much thinner membrane, and consequently are readily made to bleed. If these hæmorrhoids exist for a considerable time uninterfered with, or if powerful astringents are applied to them, they lose their velvety granular appearance, the bleeding ceases or diminishes greatly, and they remain dormant for a longer or shorter period; but in most cases they eventually recommence growing, and assume a smooth shining surface resembling ordinary mucous membrane; at the same time the main vessels feeding the growth increase in diameter, and the areolar tissue becomes thickened and more abundant; an exudation of lymph and fibrinous matter takes place beneath the mucous membrane, obliterating the capillaries and arresting the bleeding from the surface. The changes I believe to be the result of slow processes of inflammation. I am here only describing what I have repeatedly seen, and I think in this way the second variety is commonly formed.

Arterial

These arterial internal hæmorrhoids may be described as tumours varying in size, sessile or somewhat pedunculated, attaining sometimes very considerable dimensions, glistening or slightly villous on their surface, slippery to the touch, hard and vascular, with an artery, often as large as the radial, entering their upper part. When they are villous on the surface they bleed very freely, and for some reason or other have formed and grown very rapidly. On dissecting one of these tumours you will find it consists of

numerous arteries and veins freely anastomosing, tortuous, and sometimes dilated into pouches, and of a stroma of cell-growth and connective tissue, the latter most abounding. These advanced hæmorrhoids are certainly not, as some have described them, merely dilated vessels with a little cellular tissue, or sacs, or cells with fluid contents which can be emptied by squeezing.

The third variety is the venous internal hæmorrhoid, and in this the venous system predominates. The tumours are often very large. I have seen them quite the size of a hen's egg. They are bluish or livid in colour, and they are hardish; the surface may be smooth and shiny or pseudo-cutaneous. Besides these chief varieties it may be well here to mention two other conditions.

Professor Richet, of Paris, at the Hôtel Dieu, delivered a lecture on what he termed 'white piles' (*hémorrhôïdes blanches*), as they did not discharge blood like ordinary internal hæmorrhoids, but a sero-mucous fluid. The professor stated that the white piles are merely ordinary piles in a more advanced stage, and consisted principally of hypertrophy of the papillary bodies of the mucous membrane. The incessant discharge acted as perniciously as frequent bleeding, being nothing more or less than transformed blood; and he advised them to be operated on in the usual way. For my part, while agreeing with M. Richet, I do not see any sufficient reason for introducing a new name in addition to those generally in use.

A state which may very much resemble but is not actually a pile is a *partial* prolapse of the mucous and sub-mucous membrane of the rectum. It differs from a pile in that there is no definite tumour; it is neither hard, smooth, nor slimy, but soft and velvety, and moreover does not consist of hypertrophied or dilated arteries or veins.

Capillary hæmorrhoids are so small and so little elevated above the mucous surface that they give no trouble by their size and rarely protrude on going to the closet.

Moreover, there is no pain unless there be the complication of ulceration. Although they are so insignificant in size, the quantity of arterial blood lost from them, though

Venous

White
pilesPartial pro-
lapseDescription
of capillary
piles

small at each action of the bowels, is so continuous as to occasion a serious drain upon the patient's constitution; I have seen many persons quite blanched by the losses they sustain.

The persistent arterial hæmorrhage caused by these capillary and also by the arterial piles, is far more exhausting than venous hæmorrhage from venous piles. The latter loss of blood often relieves, the former in time always depresses.

Examina-
tion and
symptoms

On examining a patient suffering from these capillary piles, there is little or nothing abnormal to be felt, and they can only be diagnosed by their symptoms and by ocular inspection. These patients complain of frequent pains in the back and loins, also, in the male, in the spermatic cord and testicles; they have great lassitude, and not infrequently the sexual powers are interfered with. I have seen many cases in which this was the symptom that induced the person to seek advice. One case particularly is recalled to my mind from the fact that the gentleman had paid a large sum of money to a charlatan who had been treating him for impotence, the result of spermatorrhœa. In women menstruation may gradually cease, and a condition of profound anæmia result. This is well illustrated by a case that was sent me by my friend, the late Dr. Chapman, of Biarritz.

Cases

A young lady, æt. 20, formerly robust and healthy, gradually fell ill; she became languid, fretful, fanciful, and very anæmic. Menstruation ceased almost entirely; only once in three or four months had she a scanty pale discharge. She did not complain of any pain, except in the back and legs on attempting to walk. She had taken any quantity of ferruginous medicines, and had been recommended by various medical men to try the baths at Schwalbach and other German watering-places, the disorder being supposed to be uterine. Through delicacy she never mentioned that she had lost blood *per anum*, and she had never been directly asked the question. Fortunately for her Dr. Chapman, under whose care she came, put it to her point blank, when she admitted that she bled almost daily when the bowels acted. The mystery was now solved. By the advice of Dr. Chapman she came to me, and I found that she had three very vascular capillary hæmorrhoids. I removed them—recovery ensued without a bad symptom, and she soon regained her former health.

I was consulted two years ago by a physician about his daughter, who had fallen into a very despondent state of mind, and was also weak and anæmic. Menstruation had ceased for some months. Uterine disease had been diagnosed and treated without benefit. Latterly she had said something was the matter with her bowel, and advice was sought. On interrogation it appeared that she lost blood almost daily, and occasionally in large quantities, so that she had fainted in the water-closet. Nothing protruded, and she had no actual pain, only a burning sensation at the bottom of the back.

On examination I found an extremely vascular patch of mucous membrane over the internal sphincter, about the size of a shilling. It yielded arterial blood at the slightest touch, and the sphincter muscles were somewhat contracted. Gentle dilatation, and one touch with the Paquelin cautery, completely cured her.

It is these daily small losses which are apt to be overlooked, and which female patients, accustomed to their monthly discharges, scarcely think worthy of mention, but which, when added to menstruation, become a serious matter, and speedily induce chlorosis and an amount of debility which can be combated only by removing the primary cause of the malady. Very tiresome constipation is usually found attendant upon this condition, and often continues after the patient has recovered her general health. It is only to be overcome by patient attention to diet, exercise, and the administration of such medicines as give tone and gently stimulate the colon, without irritating or purging. I have found faradisation a valuable adjunct to other treatment. You do not generally find more than two or three capillary hæmorrhoids in the same patient—very often only one; and in women this is almost always situated anteriorly, and then it is very easily prolapsed. It is this variety of the disease which is benefited by the application of fuming nitric acid—I say benefited, not absolutely cured, for, in my experience, you cannot by any means be certain of effecting the latter result. Had the use of the acid been restricted to this form of pile, it would not have fallen into such utter disuse as it has; it was the unsurgical attempt to cure large hard hæmorrhoids with it that brought it into discredit. Ten years ago, when this treatment was in vogue, it was frequently used in the most reckless and unscientific manner, quite regardless of how much it really

Palliative
treatment

could do. I used to see patients with large, fully developed rectal tumours, to which acid had been applied half a dozen or more times, causing great pain, and with the result of no real curative impression being made upon the disease. I am sorry to say this method is not yet quite obsolete, for I once saw with Dr. Playfair an elderly lady with large piles, who had suffered very severely from several applications of strong acid, made a short time before by a hospital surgeon of considerable repute.

It is not an uncommon thing for patients to come with advanced hæmorrhoids, relating this history: 'Their piles had been (as they called it) operated upon a year or so before with acid, and for some time they were better, but that latterly they had become worse than ever; they rarely bleed now, although before the acid was applied they lost a good deal.'

Here is an illustration:—

A case

A patient came under my care, who had two very characteristic capillary hæmorrhoids, and lost almost daily a quantity of blood. The case was one peculiarly well suited for the nitric acid treatment which in time past was much practised. I applied the acid thoroughly without causing any severe pain. The result was highly satisfactory, the bleeding was at once stopped, and the patient left my care quite happy.

About eighteen months after I had first seen him, he again consulted me, complaining of discomfort in the rectum and of a protrusion on going to stool. He only very occasionally lost blood. On examination after injection I found three hæmorrhoids fully formed, and I advised an operation by ligature. He, however, objected to that, and wished me to re-apply the acid; this I declined to do, knowing that it would not in any degree benefit him. He went away to consider whether he would have the operation done, but he did not return again for nine or ten months; he then told me that after seeing me he consulted another surgeon, who applied nitric acid four times for him, but that he had gained only very temporary benefit, and that he was now worse than ever and wished for a radical cure. On examining him I found five hæmorrhoids, three large and of the venous character, and two small, of the capillary kind, which had formed since I saw him.

In these small vascular, granular piles, strong carbolic acid is a very good application, as also is the following ointment:—

R Ferri subsulphatis ʒss. to ʒj
 Vaseline ʒi—M.

or a suppository of

R Ferri sulphatis gr. ij
 Gelatinæ pars j
 Glycerinæ partes iij.—M.

or the injection into the bowel of

R Hamamelis ʒj
 Twice a day.

or the occasional application of chromic acid to the piles.

These act as most powerful astringents, not as cauterants. They cause little or no pain. I have with these remedies effected many cures, and materially relieved numbers of cases where an operation has not been desirable, or when the patient was too nervous to submit to one. Rouse and Co., the chemists in Wigmore Street, prepared for me an excellent Liquor ferri subsulphatis, and I found it answer admirably as a styptic and astringent in small ulcerations as well as capillary hæmorrhoids.

In the second and third varieties—viz. the *arterial internal* and the *venous hæmorrhoids*—there are many symptoms common to both. The suffering occasioned is more directly associated with the condition of the hæmorrhoid itself as to inflammation or ulceration, and with the state of the sphincter ani muscles: a relaxed condition, such as frequently exists in women and in men of lax fibre, allowing the protrusion of even small hæmorrhoids on the slightest exertion. This may be specially noticed in the common case of a perineal hæmorrhoid in females who have borne children. In the earlier stages of the complaint, when the piles come down at stool, they nearly always bleed; but they spontaneously return within the sphincter after the bowel is emptied, or upon the patient resuming the erect posture, or, at all events, upon lying down and voluntarily retracting them; and then the bleeding ceases. Later in the progress of the disease, the patient is compelled to return them by pressure, and then they keep up; but in still further

Arterial
and venous
piles
Symptoms

advanced cases, although returned, they will not remain in place if the least exertion be made. In this way alone they cause much discomfort; they also discharge a gummy acrid mucus; watery when constant, viscid when at stool, which keeps the part constantly damp, leads to excoriations around the anus, and favours the growth of cutaneous excrescences; moreover, it stains the linen, and on this account is a source of great annoyance to sensitive, delicate-minded persons. Generally after visiting the water-closet the patient is some time before he can get at all comfortable, often having to lie down, and when he walks about he is almost always aware of the fact that he has a rectum. In health no person feels that he possesses one organ more than another, unless he has to use that organ; often the first intimation of impairment of health is the recognition of the fact that there is a preponderance of sensitiveness or some abnormal sensation in one member of the body. So in rectal diseases the fact is always present to the mind of the sufferer that he has an anus. He scarcely ever feels that his bowel has been properly relieved, and this feeling often leads to frequent visits to the closet, and attempts to procure satisfaction by straining, which ultimately aggravates the malady. The condition of the sphincter ani plays an important part in causing distress; if it be strong and tight, when the piles come down, they get nipped and their return is rendered difficult and painful; on the other hand, if the sphincter be lax, the bowel is constantly coming outside on the slightest exertion, as in coughing, stooping, or even walking; and in these cases when the bowel is down, the patient can seldom retain liquid motions. I frequently meet with patients who say they have to retire to a urinal and push up the protrusion when it descends, or they cannot walk at all. The nature of the employment, of course, has much to do with the discomfort of the patient; again, constipation adds greatly to the severity of the symptoms, and so also does habitual relaxation, which, by causing frequent protrusion induces inflammation and ulceration of the part. These advanced hæmorrhoids are almost always associated with cutaneous hypertrophies around the anus, and

these, being irritated by the discharges, become inflamed and very tender. Sometimes I have seen a number of polypoid growths studded over the mucous membrane at the entrance to the anus; in a patient of mine at St. Mark's Hospital I counted twelve of these, and recently I have had a private patient on whom I counted twenty-two excrescences.

In old-standing prolapsed hæmorrhoids there is frequently a difficulty in retaining wind or loose motion; this is caused in part by the relaxed, weak state of the sphincter, but more particularly, I believe, by the loss of the acute sensitiveness of the mucous membrane at the lower part of the rectum. This sensibility in the healthy subject gives timely warning to the sphincter and to contract when necessary.

Symptoms
in old-
standing
cases

If an examination is made of a patient suffering from arterial or venous hæmorrhoids, distinct tumours may be felt, bulging from the rectal wall with well-marked sulci between them, and on slight outward pressure of the finger one of them may be made to protrude. If scratched, they bleed freely; in the arterial the blood issues *per saltum*, in the purely venous pile it only oozes out and runs away. These tumours vary considerably in size, even in the same patient; some are quite small, others as large as a bantam's egg. Now having described the general symptoms of these two varieties, it may be well to mention some symptoms peculiar to each.

Examina-
tion

The *arterial* piles are not so much dependent upon constitutional causes, being more particularly a local disease; they are not so affected by excesses in diet, &c., and are, therefore, less amenable to palliative treatment. The tumours are not generally so large as in the venous pile.

Difference
between
arterial and
venous
piles

They have a greater tendency to bleed, the blood being of an arterial character. They have not the same tendency to prolapse as the venous, and the sphincters, as a rule, are tighter, rendering the return of the piles more difficult.

The *venous* piles, as I have already implied, generally result from constitutional causes. Constipation plays a great part both in producing and in aggravating them.

They are commonly found in women who have borne many children and who have an enlarged or retroverted uterus; they often occur about the change of life. They are also seen in men with enlarged or indurated livers, in whom the portal system is constantly engorged, and the circulation through the abdominal viscera is obstructed. This is the form of hæmorrhoid spirit-drinkers get.

The tumours are always large. They do not usually bleed much, but when they do the hæmorrhage is chiefly venous.

They prolapse very considerably, and constantly come down upon the slightest exertion; but as the sphincters are wanting in tone the protrusion can easily be returned, only to re-protrude.

Question as
to treat-
ment

As palliative treatment has but little effect on arterial internal piles, they may be dismissed for the present; operative procedure is absolutely requisite to obtain any permanent benefit. In patients who refuse to submit to such radical treatment, some of the ointments or lotions used for the treatment of capillary piles may be tried.

Palliative
treatment

It is in the venous kind of pile that palliative treatment is most likely to be successful, not, perhaps, in always curing the disease, but in materially alleviating it, as the malady, as I have previously said, often depends upon uterine or liver affections, and a generally overloaded congested condition of the system, found in those who habitually eat and drink too much, and who take but little exercise. These causes may, to a great extent, if not altogether, be removed, and if they are so, the hæmorrhoidal disorder will be found to be benefited to an equal degree. A prolonged course of the Friedrichshall and Carlsbad waters will be found useful. I have also seen benefit derived from the oil of sandal wood taken in conjunction with such remedies as relieve congestion of the portal system, and depurate the blood generally.

The following are some of the prescriptions I commonly use :—

R Pil. hydrarg.	gr. jss
Pulv. rhei	gr. jss
Ext. col. co.	gr. jss
Ol. juniperi	℥j—M.

One to be taken at bedtime.

R Mag. sulph.	ʒss.
Pot. nitratis	gr. xv
Liq. ammon. acet.	ʒss.
Liq. ext. cinch. flav.	ʒss.
Dec. glycyrrhizæ	ʒj

To be taken two or three times a day.

R Ammon. chlorid.	gr. iiij
Podophyllin	gr. ss.
Ext. nucis vom.	gr. $\frac{1}{4}$
Ext. belladonnæ	gr. $\frac{1}{4}$ —M.

One pill at bedtime.

R Sodæ sulph.	ʒj
Mag. sulph.	ʒ½
Acid. nit. dil.	℥x
Succi tarax.	ʒj
Inf. calumb.	ʒj

To be taken two or three times a day.

The patient should be careful as to his diet, which must not be of a stimulating character, and should be almost devoid of alcohol. After the action of the bowels a small injection of cold water should be administered, and the piles anointed with astringent ointments.

Although venous hæmorrhoids are usually found in adults, I have seen them in children. Here is a case.

Henry S—, æt. 3, was brought to St. Mark's Hospital. He never was a robust child, and looks delicate now. For eighteen months his mother had noticed something came down when he went to stool; latterly he complained of pain, and there had been slight bleeding. On examination nothing abnormal could be seen. Of course I suspected polypus, and ordered an injection to be given; after the bowels had acted I found three well-marked venous hæmorrhoids had come down outside. There was slight ulceration of the mucous membranes between them. Laxatives, cod-liver oil, and steel wine, together with the use of astringent ointments, effected a cure.

My friend Dr. David Young, of Rome, has recommended glycerine to be taken internally as an effective remedy in hæmorrhoids, even of advanced growth. Knowing

what an accurate observer Dr. Young is, I have now, in many hundreds of cases, prescribed his remedy, but I am bound to say without any marked success, although I have persevered with it for months continuously.

Very rarely in advanced states of venous hæmorrhoids is a cure effected without having recourse to an operation, but I have seen such cases; one particularly recurs to my mind, from the fact that I had given a most positive opinion that no permanent benefit could be obtained without operating. This was a gentleman past middle age, who had suffered for years; his piles were full-sized, they used to bleed much, and always protruded more or less at stool; they were of the venous passive form, and no doubt were dependent in some degree on the condition of the liver. In this case great attention to the state of the bowels, the patient always lying down to have an action, and remaining recumbent for an hour or two afterwards; care as to diet; smearing the piles over with the subsulphate of iron and other astringent ointments; the occasional use of a full-sized bougie; injection of a quarter of a pint of cold water daily, and the internal administration of Ward's paste, tincture of the muriate of iron, and other remedies, in about four years effected a cure. At least he told me lately that he had no trouble now with his piles; nothing came down at stool, he had no bleeding, and suffered no other inconvenience. This gentleman was, I must say, able to command every comfort, and was never in any way compelled to exert himself; he had an insuperable objection to anything like an operation, but was most determined, persevering, painstaking, and intelligent in carrying out all the devices I have mentioned. Such conditions are rarely met with in ordinary life; and therefore, for all practical purposes, it may be said that an operation is indispensable. I have since this case met with others of a similar character, and some have yielded to general treatment and the internal use of the chloride of ammonium.

The so-called 'white piles' and partial prolapse of the mucous membranes of the bowels, may be dismissed with a few remarks. The white piles are the arterial and venous

White
piles and
partial
prolapse

piles that have attempted to cure themselves ; that is to say, they are hard, non-vascular, and do not bleed. Their chief discomfort arises from the sero-mucous fluid discharged and their tendency to prolapse, relief from which is only procured by removal of the tumours. The partial prolapse has the same symptoms as the white piles, and before the surface of the prolapse becomes hard, an attempt at cure may be made by palliative measures. This failing, operation is requisite.

It must be thoroughly understood that although I have described all these piles as distinct varieties, yet several of them may co-exist in the same patient, a circumstance which, I think, tends to confirm the opinion I entertain that they are only modifications of one initial disorder. Nevertheless in these cases of co-existence the palliative treatment to be adopted should be that peculiar to the species that happens to be predominant.

Co-existence of various kinds of piles

Inflamed piles, or piles which are constantly coming down and getting compressed by the sphincters, are those which give great pain to the patient. The amount of suffering depends in a measure upon the state of the sphincter muscles, as does also the amount of congestion of the piles themselves. Inflammation is very soon lighted up in these cases ; unusual straining with a costive motion, a drastic purge, sitting on a damp seat, excessive sexual indulgence, or a little excess in alcohol or in eating, may be sufficient to start it. When the part is extruded and gets nipped by the sphincters, partial strangulation takes place, and in some cases you see large, inflamed, bluish hæmorrhoids constricted by a broad band of everted sphincter muscle and mucous membrane, and this constriction may take place to such an extent as to occasion more or less sphacelus. I have very rarely seen this occur to a degree sufficient to effect a permanent cure of the malady, although it may afford great relief for a time.

Protruded inflamed piles

When called to a patient whose piles have *just* come down and cannot be returned, proceed in this way : Place him flat on his face, with three or four pillows under his pelvis, to raise the hips well up and allow the intestines to gravitate towards the chest ; then apply to the piles a

Treatment of protruding piles

piece of wool saturated with a twenty per cent. solution of cocaine, and allow it to remain on the piles for ten minutes, then pass a well-anointed finger into the bowel, and with the other hand gently apply pressure, trying to empty the piles of their superfluous quantity of blood; this should be done very gently, as you would apply taxis to a hernia. Should this not succeed, place a bladder of ice over the part, and leave the patient in the position I have recommended for an hour; then try taxis again, and you will in all probability return the mass. I have found on several occasions that freezing with the ether-spray has been an effective and more rapid method of inducing contraction temporarily, and removing the sensitiveness so that you can apply more direct pressure, but I am bound to say this manœuvre is usually followed by severe burning pain in the rectum. If your attempts at replacing the piles have not been successful, try to persuade the patient to have them operated upon without delay; if he will not accede to this proposal you may order some leeches or apply to the piles one of the ointments or lotions recommended in the treatment of external piles, pp. 84 and 87. If there be much strangulation, ice should not be kept on very long, or you may produce more sphacelus than you desire. In some instances warm applications with sedatives are more comforting, and relieve pain sooner than cold.

Treatment
of pro-
truded in-
flamed
piles

If, when called to a patient, the piles have been down some time and are greatly inflamed or even sloughing, and cannot be returned, leave them alone.

If they can be returned but immediately prolapse again, do not, as I have frequently seen done, attempt to keep them above the sphincters, as it is useless and harmful. The treatment in such a case is to apply a piece of lint smeared with one of the following ointments, and a warm linseed poultice covering the lint:—

R. Ung. elemi	.	.	.	.	.	.	3ss
Ung. sambuci	.	.	.	.	.	.	3ss
Bal. copai bæ	.	.	.	.	.	.	3j
Ext. belladonnæ	.	.	.	.	.	.	3ss

or R. Ext. belladonnæ	3j
Ext. hyoscyami	3ij
Ext. conii	3ij
Vaseline	3j.—M.

By the warmth and the ointment profuse suppuration is caused and a separation of the sloughs quickly procured.

If the patient is much depressed, stimulants and tonics will be necessary, but the general treatment must be regulated according to the character of the constitutional disturbance.

For my own part I never hesitate to operate at once in a case of inflamed and irreducible piles if I can get my patient's consent; a speedy and radical cure of the disease is thus obtained. I never saw a case of this kind do badly, although some surgeons have said that inflamed hæmorrhoids should not be operated upon. I will make an exception in cases of protruded piles where mortification has set in to any extent; here, although it may be necessary to operate, care must be taken, as the tissues are so broken down that the ligatures will not hold and hæmorrhage may result. In one case I remember the parts were so friable that the ligatures cut through the piles, and there was considerable difficulty in arresting the bleeding; I accomplished it by passing a tenaculum deeply below the vessels and applying a ligature around it. I then cut the tenaculum away from the handle and left it in for three days. This patient did exceedingly well, and was about in less than three weeks.

I have frequently been consulted as to the propriety of operating upon hæmorrhoids in pregnant women. I think the operation quite admissible if the patient is losing much blood or is suffering greatly. I recently had a case in a woman, five months pregnant, who was voiding such quantities of blood that she was quite blanched, and it was absolutely necessary to interfere; she had no untoward symptoms after the ligature of five piles, nor was her recovery much retarded. I have operated many times, always in urgent cases, but only once has a miscarriage

Question of
operating
on preg-
nant
women

resulted. I always keep these patients recumbent longer than ordinary cases, for if they get about too soon the wounds do not heal well.

In uterine
diseases

In women suffering from a retroverted or anteverted uterus an operation upon piles is very undesirable, and will most certainly end in disappointment unless the uterine complication be attended to at the same time, or, what is better, prior to the operation. My experience warrants me in saying that if you can restore the uterus to its normal position and size, you will find that the rectal affection will soon become a comparatively small matter. In my earlier operations upon women I did not take into sufficient consideration the condition of the uterus, and I could relate many cases in which I was most grievously annoyed to find that the patient did not recover, as I anticipated she would have done. I have found that if the wounds heal there is but little relief afforded; the same bearing down and distressing sensation exists in the bowel as was the case before the removal of the piles. More commonly the wounds do not heal, and very painful unhealthy ulceration follows; this will never get well as long as the abnormal condition of the uterus remains. I will briefly relate a case or two bearing upon this point.

Cases

Mary C—, æt. 34, came under my care, in the early part of the year 1862, at the Farringdon Dispensary. She was a single woman, and had suffered for years from hæmorrhoids; they came down at stool; she lost blood and had much bearing down; she was likewise troubled with her water, passed it very frequently and with difficulty, never feeling that she had quite emptied her bladder. The urine was not turbid, and she did not have actual pain—only discomfort. On examination four full-sized hæmorrhoids were found (their character is not stated in my note-book). Aided by my friends, Dr. Frodsham and Mr. Charles Smith, I applied ligatures to them. The operation was followed by retention of urine, and a catheter had to be passed for the first few days; while she was in bed she seemed better, but after a fortnight, when she began to get about, she complained of bearing down in the 'back passago,' and much pain in defæcation. The bowels were very difficult to get to act. These symptoms I had expected would pass away when the wounds were quite healed; but, to my dismay, they did not, and two months after the operation I found there was ulceration of the bowel, and she suffered a great deal. I had for some time suspected that the uterus was not right, so I

obtained the opinion of Dr. Edward Cock, who was at that time the obstetric physician to the Dispensary, and that gentleman pronounced that she had a fibroid tumour of the uterus (this diagnosis was afterwards confirmed by many other authorities). I need not prolong this history—suffice it to say that she never got well; for years I saw her occasionally; she always had rectal symptoms and suffered a great deal of pain. I do not think the ulceration of the bowel ever entirely healed. I took her into St. Mark's Hospital in the year 1867, and by rest and treatment she got better, but not well; for the last three years I have lost sight of her. I believe she gained admittance into one of the hospitals for incurables. I am quite certain of one thing, *i.e.* she was not benefited, and I am strongly of opinion that she was damaged by the operation I performed upon her.

Emma N—— came under my care in February 1864; she was a single woman, *æt.* 24. She complained of great pain in passing her motions; the pain lasted for hours, and then gradually subsided, and she was easy until she had again to go to stool. Of course my diagnosis was fissure, and I was correct, but in addition I found three large internal arterial hæmorrhoids. I incised the fissure and tied the piles. She went on very well and left the hospital, feeling quite comfortable, and being free from pain on the bowels acting. In about a month she came again to me, saying that her old symptoms had returned; but, on examination, I could find no fissure or ulceration, or anything the matter with the rectum. She complained of pain and straining when the bowels acted, and a sensation of not being relieved afterwards; the only thing I could find to account for this was a tendency to intussusception of the upper part of the rectum on her bearing down. I treated her with laxatives, sedative injections, suppositories, and other remedies, but with very little benefit; what seemed to do her most good was rest in bed. Suspecting uterine disease, I recommended her to see an obstetric physician, and she came under the care of my friend, the late Dr. Palfrey, and that gentleman found that she had retroflexion of the uterus. She was under his charge for a very long period, and underwent some operative treatment at the London Hospital. After this I took her into St. Mark's Hospital, but could never find any organic mischief in the rectum, although she still suffered pain and much discomfort in connection with defæcation. I have recently heard that this patient is now better, but for years she was incapable of doing any work. It was said that masturbation was the primary cause of this woman's suffering; it might be so, but I cannot say that I am prepared to endorse that opinion.

Mrs. R——, a patient of my friend Mr. Charles Waller, of Sydenham, was operated upon by me for severe hæmorrhoids, Mr. Waller assisting me. I knew this lady was suffering at the same time from vaginismus, but I thought that the removal of the rectal disease might be generally beneficial to her health, which was very much deteriorated by the losses of blood she sustained. After the operation she was much

better for a few weeks, but the wounds in the bowel healed with great difficulty, and after some time she had a good deal of pain on defæcation, and the bowels were very confined. I could not discover any disease of the rectum, although her symptoms were directly referable to that organ. A year or so later she was operated upon by Dr. Barnes for the cure of the vaginismus; but I know that she has never recovered good health, and is an invalid to this day, her sufferings being most prominently rectal.

Complication of piles in women

Tripartite disease of the rectum, uterus, and bladder or urethra, is very common. I attended a lady of middle age, who had hæmorrhoids and fissure; after the operation she still suffered pains in the rectum, and I suspected disease of the womb, as she had difficult and painful menstruation. She was seen by a distinguished gynæcologist, who found a contracted os uteri, and she underwent an operation which for a time did good; then she suffered from spasm of the urethra and great pain on micturition. Dilatation of the urethra was performed, also with temporary benefit, but her rectum, although perfectly sound, was every now and again very painful, and always so at her menstrual period. I know this lady consulted most of the eminent men in London, and had all kinds of treatment, and still she comes to me from time to time, and it is many years since I first saw her, with all her old symptoms, not merely subjective, but objective, as inflammation of the rectum, uterus, bladder, and urethra—one or all at the same time.

I have had a lady under my care, who suffered from subinvolution of the uterus, with ulceration of the os and painful profuse menstruation; she had also hæmorrhoids, which prolapsed and bled, and a circular ulcer in the bowel. It was agreed that an operation should be performed, and I removed her hæmorrhoids with the clamp and cautery and incised the ulcer. The healing was most difficult and tedious; ulceration took place, and such contraction as to cause stricture, which after some months I was compelled to divide. She also acquired inflammation of the bladder, after having a catheter passed only a few times, so that great pain on micturition was added to her other troubles; only after the most constant attention, and compelling her to occupy the recumbent position for more than four months, did she recover. Parallel cases are so common with me, that I could relate many more, but I only want to show how complicated and difficult to treat these cases are.

In drawing this chapter to a close I feel compelled to repeat what I stated in the chapter on examination of patients: I refer to those patients with bleeding piles who are often supposed by their friends, and even by their medical attendants, to be in a condition of health too bad to allow of an operation. For they are daily losing blood, and this hæmorrhage having continued for some time, the results are extreme anæmia, palpitation, attacks of fainting, and even albumen in the urine. Now to advise them to wait until they gain greater strength is altogether mal-practice, for even a day's delay may entail greater risk for the patient when he, weakened instead of strengthened by the medicine prescribed for him, comes to a surgeon as his last and only hope. I must apply to this use of drugs, when the patient is losing blood, the familiar and appropriate saying, 'Stopping at the spigot, and letting out at the bung-hole.'

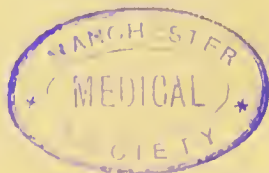
On the importance of not delaying the operation for piles

I have often operated upon patients almost dead from the constant hæmorrhage caused by piles. If the operation be quickly performed by the ligature method, which can be rapidly done little loss of blood ensues. In a very short time palpitation vanishes, fainting fits cease, and the albumen speedily disappears from the urine.

Here is an instance of the fatal results of the use of drugs when an operation was imperative as the only chance of life.

Colonel H—— came to consult me, and his waxy complexion and feeble condition at once showed me that he was a sufferer from frequent losses of blood. On interrogating him I found that this was indeed the case. He had for many months lost blood from the bowels, not only when they acted but sometimes even when walking. On examination I found he had large and very vascular arterial internal piles, which bled at the slightest touch. Needless to say I urged him to have them at once removed and the source of bleeding stopped. On leaving me he saw a physician, who said he was then too ill to undergo an operation, and advised recuperative medical treatment. He took this advice, and, the piles continuing to bleed, in a month's time he was dead.

Case



CHAPTER X.

OPERATIONS UPON INTERNAL HÆMORRHOIDS.

Prepara-
tion of
patient for
operation

WHEN you have determined that there is no constitutional impediment, and that an operation is positively necessary to effect the cure of your patient, you will then have to decide what proceeding will be best suited to the case you have in hand. From this you will conclude that, in my opinion, no particular method of operating can be always wisely employed to the exclusion of all other modes.

As a preliminary to operating upon all kinds of internal hæmorrhoids, it is most important, as far as possible, to get the large intestine emptied.

For this purpose I tell my patients to take two of the following pills thirty-six hours before the operation, and to have an enema of warm soap and water administered a few hours before the operation.

℞ Pil. hydrarg. gr. j
Pil. col. et hyoseyami gr. v.—M.

With plethoric patients, and in those whose piles are of the venous variety, a longer course of preparatory treatment is advantageous. If the liver is in fault I prescribe careful living, abstinence from alcohol, a course of Carlsbad waters, and the 'wet pad' over the liver, together with shampooing and the cold douche; also the chloride of ammonium may be very useful (3 or 4 grains three times in the day). In women any uterine complication should be attended to. I administer for three or four nights a five-grain blue pill, and in the morning a modification of the old-fashioned black draught. This may seem to be rather rough treatment, but I see the most beneficial results accrue from it; and I am confident that patients thus served do better than many others; again and again I have been perfectly

astonished at the rapidity with which they recover. Should the patient be very anæmic from great losses of blood, any preliminary excessive purging is harmful; a mild laxative and an enema before the operation are all that are advisable. Whenever it is possible I operate early in the morning, for then the patient will not have to miss a meal, recovers from the ether and pain before nightfall, and therefore has the chance of a fair night's rest.

The position for operating is as follows: the patient should lie on the right side at the edge of a hard couch, with the back towards the light, and the knees drawn well up to the abdomen. The assistant should stand with his back towards the patient's head and raise the upper buttock with the right hand, the right elbow being at the same time hooked over the pelvis so that he can control movement on the part of the patient and keep him in a good position, the left hand being free to assist the operator. This is generally the best position, but in Whitehead's operation the lithotomy posture is preferable.

Position of patient

There are several distinct operations and modifications of them from which to choose, and most of them have been advocated by surgeons of repute, well skilled in their art and worthy of consideration. I shall first name the operations and then proceed to describe them, and I trust fairly to express my opinion as to their various merits or demerits.

Methods of operating

1. Excision with knife or scissors.
2. The *écraseur* of Chassaignac or the wire of Maisonneuve.
3. The application of various acids and caustic pastes.
4. The injection of carbolic acid or other caustic or astringent fluids into the body of the pile.
5. Cauterisation 'ponctuée' of Demarquay, Mr. Reeves, and others.
6. Cauterisation 'linear' of Voillemier.
7. Removal by the galvanic cautery wire.
8. Removal by the clamp and scissors, applying the actual cautery to arrest hæmorrhage.
9. Dilatation of the sphincter muscles.

10. Removal by means of the screw-crusher.
11. Whitehead's operation.
12. Allingham junior's modified method of performing Whitehead's operation.
13. Ligature.

1. *Excision by the knife or scissors.*

Excision of
piles

In days gone by excision was performed by Dupuytren, Sir Astley Cooper, and others, but they all acknowledged the danger of the operation, and many fatal cases are recorded as having occurred even in the hands of such masters in surgery. With the aid of anæsthetics, with our newly devised modes of operating, and especially of arresting hæmorrhage, we can now in many cases perform the operation of excision without incurring any extraordinary danger, and therefore it need not be summarily dismissed from our consideration.

Operation

For my own part, I think it is one of our best operations, and I have now records of numerous cases in which I excised internal piles with remarkably good result. Little pain has been experienced, and the recovery has been so rapid that nearly all my patients have been absolutely well by the seventh day; by this I mean that the wounds were all soundly healed. I consider this the only test of perfect recovery—to say that they were convalescent and could go about would not express the whole truth—the word ‘convalescence’ is very elastic as regards its significance, and is often erroneously used as synonymous with ‘cured.’ I do not recommend excision in cases where the hæmorrhoids are very large, vascular, or unusually numerous. In my cases there existed one, two, or at most four piles. In performing excision I first gently but *fully* dilate the sphincter muscles, and employ a retractor to keep the anus well open; I then seize the pile deeply by its base, cut it off below the level of the vulsellum, and do not let it go until all bleeding is arrested by torsion of the arteries; rarely more than two vessels spout and require twisting. I wait for a little while to see that all bleeding has ceased, and then I treat the other piles in a similar manner.

After all the arteries have ceased to bleed, I place a piece of cotton wadding, previously saturated in a solution of tannin and water (strength, one ounce of tannin to one ounce of water), within the anus as high as my scissors have cut. In no case did any recurrent hæmorrhage take place. This operation must be done slowly and carefully, and therefore occupies more than the usual time, which, however, is of no moment, as the patient is insensible. As far as my present experience can lead me to judge, I am of opinion that numerous cases are amenable to this treatment. The single perineal hæmorrhoid, so frequently found in women, the so-called white pile, and partial prolapsed mucous membrane, are peculiarly well suited to this operation. I have used several times the ingenious toothed scissors of Dr. Richardson, but I do not like them. The theory upon which they have been constructed is excellent, but the practice is bad, the hæmorrhage is not always controlled, and often very nasty irritable wounds result. It is in these simple cases of excision that cocaine may be used should the patient object to an anæsthetic. It is only of real use when mucous surfaces are to be operated upon, as cocaine does not sufficiently deaden the sensibility of the skin to make it of practical service. 10 minims of a 10 p.c. solution should be injected into the pile with a hypodermic syringe, and a piece of wool thoroughly saturated with the same solution applied for 10 minutes previous to the removal of the pile. I must warn operators that the use of cocaine is not altogether safe, as a serious fainting condition may supervene.

When to
be used

2. *The chain or wire écraseur.*

I really do not know any sufficient reason for the continued practice of this mode of operating on piles. I have called it 'barbarous and unsurgical,' and I cannot see why I should modify that expression. The chain is undoubtedly worse than the wire, but neither is definite in its action; they remove either too much or too little. Thus I have seen several cases of most intractable stricture follow,

Ecraseur

Objection
to use

and, on the other hand, cases in which nothing curative had resulted, a timid operator taking away only two or three small portions of mucous membrane, and really leaving the hæmorrhoids almost untouched. A Brazilian gentleman was sent to me eight weeks after he had been operated on by a distinguished French surgeon with the *écraseur*; the hæmorrhoids still existed in abundance, and he was losing much blood. I have seen at least half a dozen such failures. A metropolitan surgeon of eminence told me he had obtained success with the *écraseur*, but upon interrogation his idea of success did not come up to my notion of the word. Another objection to the *écraseur* in hæmorrhoids is the intense and prolonged pain which follows, especially when skin is removed. An Italian surgeon related to me a case where death ensued in a woman from shock and pain in less than twenty-four hours, and I can quite credit his statement. I once saw a woman die in St. Thomas's Hospital from the same cause, after an operation by ligature applied in the old way—I mean by transfixion and ligature of skin as well as hæmorrhoids. The patient was operated upon by Mr. Simon on November 19, 1859. She was a pale, feeble woman, æt. 53; she died on the morning of the next day; she had suffered intensely. I have no note of what was done to relieve the pain. The post-mortem examination, made by Mr. Sydney Jones on the 21st, was as follows:—

‘Some piles had been the subject of operation by ligature—the ligatures were present. Nothing abnormal was detected in the veins leading from the ligatured piles. The thoracic viscera were healthy. There was some congestion of the posterior part of the lungs. The liver was rather large and pale. The kidneys were healthy. The peritoneum and intestines were quite healthy.’

I do not think the death in this case could be attributed to anything but shock and exhaustion from excessive pain.

3. *The application of various acids and caustic pastes.*

Acids

The treatment of hæmorrhoids by acids or caustics may scarcely seem to justify the use of the term ‘operation,’

but as some manual dexterity is necessary in order to apply them properly, I must beg permission of my readers to allude to them here. For many years acids have been used in attempts either to destroy or cause such consolidation in piles as should lead to their cure. The acids chiefly used have been the fuming nitric acid, the acid nitrate of mercury, chromic, and more recently carbolic acid. It was thought at one time that even large piles could be destroyed by acids, and many cures were published; but I very much doubt if any lasting cures of developed hæmorrhoids were effected by such means. I have seen numbers of cases in which the attempt was made, but the patients were either not relieved at all, or only very temporarily benefited. Hæmorrhage was often arrested, but it generally recurred, and on many occasions, after the free use of acid, violent bleeding took place on the separation of the sloughs, and patients were brought nearly to death's door. If the application of acids were restricted to cases of small granular piles, or patches of villous, bleeding mucous membrane, I should not object to their use, as often patients will submit to such treatment when they will not to anything more formidable, and relief and even cure in this stage of the disease may be obtained; but no satisfaction can result from touching large hæmorrhoids with any acid known to me. A few years ago I had an opportunity of testing all the acids I have mentioned in the case of an old Indian general, who had three prolapsed arterial hæmorrhoids of vascular surface and considerable size. His shattered health, with partial paralysis, forbade any serious operation, and he was unwilling that more than external applications should be made. For three months I persevered; I managed not to cause him much pain, though the diseased mucous surfaces were painted freely and frequently. The method in which I applied the acids I will mention, as I think it a good way to avoid pain. The piles being fully prolapsed (he could strain them down easily), I surrounded one with a piece of wool soaked in a saturated solution of bicarbonate of soda; the surface of the pile was then dried, and the acid applied with a small wooden brush several

Operation

times, waiting between the applications for the part to dry. Each pile being thus treated the parts were washed, well oiled, and returned within the sphincters. On one or two occasions troublesome bleeding followed the separation of a slough, but usually it came away in small portions; by this mode of using the acids I never caused any burning of skin or healthy structure. At times the patient thought himself better, but the final result was a failure.

I came to the conclusion that the chromic and carbolic acids were better agents than nitric acid and acid nitrate of mercury. Still more recently I had a good trial with acids on a gentleman who had one hæmorrhoid placed anteriorly, which was always prolapsed and consequently bled, and gave him much annoyance, but no great pain. I really expected to obtain a fair result here, but all failed. My friend Dr. B. W. Richardson had recommended me to try the application of his 'Iodized Colloid' as a remedy in internal hæmorrhoids; he told me the resulting pain would be considerable, but that a dozen touches would generally suffice for the cure. I made trial of this in the above case, but the pain experienced was so great that my patient became restive and refused to persevere. While in that humour I suddenly proposed to excise the offending pile; he consented, I at once removed it, twisted the vessels, and he was quite well in a few days.

Caustic
pastes

Caustic pastes.—Personally I have little experience of this practice as applied to hæmorrhoids, but in France and Germany it has been freely recommended. To my mind the uncertainty of the result, added to the great pain inflicted by caustics, is sufficient to deter one from using them.

Caustic pastes are mostly formed by adding an inert material to some chlorides—zinc, calcium, &c. Ricord's paste (sulphuric acid and carbon) is a favourite with some surgeons.

Dr. Laroyenne, of Paris, in the 'Gazette Hebdomadaire de Médecine,' No. 34, 1872, passes in review the usual methods of treating bleeding internal piles, and considers them all to have many objectionable features and dangers, and recommends, as Bonnet and Valette have done, the

use of Vienna paste and chloride of zinc; but instead of applying the caustic all over the pile, he uses it in the following manner. When the part is prolapsed, several lines are drawn along the surface of each hæmorrhoid with Vienna paste, the lines converging towards the orifice of the anus. After two or three minutes, the application is followed by placing small fragments of chloride of zinc paste where the Vienna paste has been. Eight or ten caustic lines are sufficient to cure the largest prolapsus. In this manner deep radiating cauterisations are produced without destroying much of the surface of the piles. The application remains for seven or eight hours. The only painful period, says Dr. Laroyenne, is during the application of the Vienna paste. He has employed this method fourteen times without the slightest ill-effect resulting, all the patients being cured, and he believes the treatment to be less often followed by hæmorrhage, pyæmia, and other accidents than any other. I am sorry I cannot concur with Dr. Laroyenne, and submit that his experience is far too small to justify his belief.

Operation

4. *The injection of carbolic acid or other fluids into the substance of the pile.*

I have read in American pamphlets that the injection of carbolic acid into internal piles for the purpose of effecting radical cures is very commonly practised in America, and that 'shoals of quacks' perambulate the country, armed with a hypodermic syringe, and a bottle containing a so-called secret remedy, this remedy being carbolic acid diluted in different ways and of differing strength; the favourite formula is equal parts of strong carbolic acid, glycerine, and water. This treatment is strongly advocated by Dr. Cook, of the Kentucky School of Medicine, who obligingly sent me his essay upon the subject. I most sincerely hope he is in error as to the 'shoals of quacks' who employ this remedy; but if radical cures *are* effected, and no evil results, the only objection I can see is that the legitimate practitioner loses his fees.

Injection
of carbolic
acid

After carefully reading Dr. Cook's pamphlet I did not feel quite satisfied that he had made out a good case for the carbolic-acid treatment—in fact, he only relates the histories of two persons on whom he had performed injection; he generally uses the formula I have mentioned, and squirts through a large needle ten to twenty drops of the solution into the substance of the pile; he does not inject all the hæmorrhoids at once, but one or two at a time every other day until all are done. Many American surgeons who come to see the practice at St. Mark's have repudiated the treatment in round terms, and call it uncertain and dangerous. Dr. Matthews, of Louisville, has kindly sent me his pamphlet, read before the Kentucky State Medical Society in 1878, and in that paper he endeavours to show that the injection of the acid into a pile is painful and inefficient, and that death is to be feared (*a*) from peritonitis, (*b*) from embolism, (*c*) from pyæmia. In support of his assertion he relates a case under the care of another practitioner, where in twelve hours violent inflammation followed, but the piles were not cured, for in twenty days after the injection one tumour had to be removed by ligature. He also cites another case of peritoneal inflammation, and says embolism and pyæmia have been known to result from injecting nævi with solution of iron, and deaths have occurred from injecting internal hæmorrhoids with carbolic acid. For my own part I am much inclined to agree with the opinion of Dr. Matthews. I have tried the injection plan in many cases, but the result was generally much pain, more inflammation than was desirable, a lengthy treatment, and the result doubtful; certainly not a radical cure. For it must be borne in mind that though the injection of carbolic acid into the interior of piles may in some instances stop the bleeding for a time, yet it cannot and does not in any way remove the tumours. It consequently does not prevent prolapsus and the discomfort arising from that condition, which generally causes more trouble to the patient than slight bleeding.

It appears to me that all attempts to destroy vascular growths by causing coagulation of blood or inflammation

in them, while they are not shut off from the general circulation, must be fraught with danger. You can have no guarantee that the coagulum may not break down, and minute particles of dead tissue find their way into the vascular or lymphatic systems, and result in embolism or pyæmia, or both. Perchloride and persulphate of iron in solution have been used in the same manner as carbolic acid, but a similar risk is connected with them, and this I submit far outweighs the advantages they are said to offer.

5. *Cauterisation ‘Ponctué.’*

As far as I can ascertain, M. Demarquay, in the year 1868, practised and strongly advocated the use of a red-hot cautery as a cure for internal hæmorrhoids. The iron was to be thrust deeply into each pile twice or thrice. He had not much success. I have been informed by several friends in military and civil practice that the native doctors in China and some parts of India treat hæmorrhoids according to the plan of M. Demarquay, and possibly have done so for hundreds of years. My informants have not been able to satisfy me as to the results of the treatment, only my friend Dr. Beaumont said, ‘he thought that many died.’

Cauterisation Ponctué

In 1873 Enrico Bottini, of Novare, published a thesis entitled ‘Il galvanico caustico nella pratica chirurgica.’ I make the following extract on hæmorrhoids: ‘The operator, providing himself with a galvanic cautery heated to a fine red, applies the point of it to the hæmorrhoidal tumour, and introduces it slowly and progressively to a depth varying from ten to fifteen millimètres. When the point of fire has arrived in the interior of the tumour he moves it around, allows it to remain for a few seconds, and then rotates as it is withdrawn; he repeats the treatment in the same manner and with equal precautions to all the piles. If the tumours are extensive he again introduces the cautery parallel to the rectum.’ A case of pyæmia following this operation is related in full detail by Verneuil. A similar operation was performed in 1873 by E. Lartisen, a pupil of Verneuil. Mr. Reeves, of the Soho Hospital for

Diseases of Women, has brought this method forward in an article in the 'Lancet' of February, 1877. He calls it 'immediate' and 'new;' the one is just as correct a definition as the other. Wishing to see whether the conical cautery attached to the 'Paquelin' instrument was better than the hot iron of Demarquay or the Chinese, within a fortnight of the appearance of Mr. Reeves's paper I used it in three cases. One was a patient of Dr. Hills, of Abbey Road, St. John's Wood; another was a case which I left to the care of the late Mr. Ernest Carr Jackson, seeing the patient only twice or so myself; and the third was a hospital case. I am bound to say that, although Meyer and Meltzer made my cautery, and I rigidly followed Mr. Reeves's directions, these cases were all failures—great pain, retarded recovery, and abscesses occurred in two; in one a cure did not result. I was only pleased nothing worse happened, as the same objection applies to this mode of treatment as I brought against the use of injections of acids into piles—viz. you produce a slough or inflammation, the extent of which you cannot measure or control, in the interior of a vascular tumour not cut off from the general circulation.

When to be
used

Although this method of treatment is not efficacious with arterial and venous piles, yet I think the actual cautery in the vascular capillary pile may effect a cure. The point of the cautery should be applied over the entire bleeding area, but the burning should not extend deeply into the walls of the bowel.

6. *Cauterisation 'linear' of Voillemier.*

Linear
cauterisa-
tion

The operation of Voillemier, I think, is 'unique,' and I feel I cannot do better than translate from 'L'Union Médicale' (1874) such portions of his lecture as shall make his method quite clear to my reader.

I must express my pleasure at the straightforward manner in which M. Voillemier describes the advantages and disadvantages of his operation. He does not hesitate to say that the patient may be one month in getting well; he

states that in very bad cases two operations may be necessary, and further considers the dangers which may arise.

‘The patient, whose rectum has been emptied in the morning by means of an injection, ought to be chloroformed ; but if he prefer to remain awake, it is of little importance, as the operation lasts only some seconds. He is laid on an edge of the bed, with one leg extended, and the other bent, as if he were going to be operated on for fistula. The assistant raises the disengaged buttock, the surgeon paints the anus and the surrounding parts freely with collodion, whilst another assistant, by means of bellows, drives off the fumes of the ether, which are sure to catch fire when a highly heated cauteriser is brought near them. During these preparations, two knife-shaped cauterisers have been placed in a small furnace, full of charcoal or burning wood. The blades of these cauterisers should be two centimètres long and one wide ; the tip and edge should be blunt, as in ordinary cauterisers, but the back should be four or five millimètres thick, so as to hold enough heat. The surgeon takes one of these cauterisers when it is white hot, and introduces it about one centimètre into the anus, bearing with the shoulder of the instrument rather more on the cutaneous than on the mucous orifice, and makes four cauterisation lines, before, behind, on the right, and on the left. The operation is terminated when it has lasted five or six seconds. The patient is brought back to consciousness, and simple water dressings only are applied to the anus. We must premise that, under the influence of the congestion produced by cauterisation, the hæmorrhoidal tumour will appear the first day or so, and may sometimes be larger than usual, but no notice need be taken of it. We can relieve the pain of the patient, pain which has no relation to the cauterisation, only by coating over the hæmorrhoids with a narcotic ointment, and covering them up with a poultice. The tumour soon ceases to be painful, and is at last completely and spontaneously retracted. The time necessary for cure varies only according to the size of the hæmorrhoids, the relaxation of the anus, and the age of the patient. It has never exceeded one month,

Operation

and has sometimes been much less. In some subjects, even when circumstances have made success doubtful, cure has taken place as in simple cases. The patient ought to be chloroformed, particularly in private practice, where the assistance is less efficient than in a hospital, for though the operation is rapid it is also very painful. The patient may struggle after one or two applications of the cauterly, and even refuse to allow others to be made, so that the operation would remain incomplete. The orifice of the anus and the surrounding parts must be painted with collodion. This is a very important precaution. All surgeons have affirmed the difficulty of preventing the effects of radiated heat. To preserve the parts from these effects, cloths steeped in cold water, and thin plates of wood, have been used; but not only are these in the operator's way, but they are, as a rule, inefficacious. Collodion, on the contrary, even when applied in a thin layer only, forms an artificial epidermis scarcely permeable to heat and sufficiently protecting the skin.

‘It is necessary to dissipate the ether vapour, or it would take fire as soon as the heated cauteriser is brought near the anus. The accident would not be of much importance, for the burning vapour is easily extinguished by blowing it out; but it is better to avoid it altogether. It is easy to understand the importance of the use of collodion in relation to the pain which succeeds the operation. The patient cannot feel pain in the parts to which the iron has been applied, for the tissues are dead, but he suffers in the surrounding parts which have been attacked by the radiated heat, and the painful nature of superficial burns is well known. The burns, however, are not very serious, and the pain lasts only about four days, being principally felt at the time when the inflammation necessary for the falling off of the sloughs develops itself, or during defæcation after the sloughs have fallen off. The cauterisers ought to be knife-shaped, or even with round points. To ensure the rapidity of the operation they should be heated to white heat. One operation is frequently enough, but more than two are never necessary, how large soever the hæmorrhoidal

tumour may be, for we do not act directly on the latter, but on the anus.

‘In some cases the tumour cannot be reduced before operation, or can be only partially replaced, the involuntary contractions of the muscles causing it again to protrude. No notice need be taken of this accident. The cauteriser is slipped between the tumour and the walls of the anus, for it is of little consequence if the hæmorrhoids should be lightly cauterised by the back of the instrument.

‘Sometimes the shoulder of the cauteriser implicates the cutaneous circumference of the anus, but that is of no importance; it is even sometimes useful when the anus is considerably relaxed. There is no need to dread hæmorrhage, for the cauteriser interferes only with the mucous membrane, the submucous cellular tissue at the entrance of the anus, and the skin at the edge of the orifice. At all these points the vessels are small, and when the hæmorrhoidal tumour is touched by the back of the cauteriser, it is in so light a manner that no vessel of any magnitude can be opened.

‘If any accident is to be feared it would be stricture of the rectum; but the four cicatrices which have been formed at the entrance of the anus, although possessed of great retractile power, are made linear and in the direction of the intestine. Between them are intervals occupied by highly elastic tissue, and the presence of these renders stricture impossible. It may be objected that, if the anus remain sufficiently dilatable, the patient may have a relapse. This accident is certainly not impossible, but it is the business of the surgeon to estimate the state in which he finds his patient. If he be going to operate upon an old person having a large and old-standing tumour, and whose anus has little resilient power, he should lean a little more heavily on the cauteriser, so as to implicate a greater thickness of tissue than in ordinary cases; by this procedure he will be sure to avoid a relapse.’

I will only remark that I have no doubt the operation is efficient. But I should not advise its use, as there are many others quite as sure, and far safer and easier of

performance. The recovery is rather long and the pain is considerable, but by experiment I find that the application of collodion does away in great degree with the pain usually inflicted by radiation of heat.

7. *Operation by the Galvanic Caution.*

Galvanic
cautery

The galvanic cautery may be employed for the removal of hæmorrhoids, the division of fistula, and other surgical operations about the rectum. I have myself some personal experience in its use. I fail, however, to see any good reason for the adoption of this method of operating in ordinary cases. If a cautery be required, I cannot tell why the galvanically heated wire should be preferable to an iron heated in the fire, or to any form of platinum cautery rendered hot by the rapid combustion of benzoline, as in the 'Paquelin' instrument. In my humble opinion, in almost all cases the 'Paquelin cautery' is superior to any other. As a matter of course, the person working the cautery must thoroughly understand the mechanism of the instrument, and have had some practice in its use. All the failures I have seen with it have been consequent upon the small knowledge of those who were working it. An expert can at an instant give any heat you may require from white to black.

The galvanic cautery requires a cumbersome battery; it is exceedingly apt to fail; you may at the supreme moment get either too much or too little heat, and this difficulty will occur even in the hands of a specially trained assistant. There is still another objection, which applies chiefly to simple cases, as, for example, the removal of piles; there seems an amount of fuss and pseudo-scientific show about it to which my mind is exceedingly repugnant. The only battery at all reliable is Daniell's.

8. *The removal of hæmorrhoids by the clamp and scissors, the bleeding being arrested by the application of the heated iron.*

Clamp and
cautery

This operation is generally known as the 'clamp and cautery' operation, and is now most frequently associated

with the name of Mr. Henry Smith, although, in truth, it was devised in its entirety by Mr. Cusack, of Dublin, and was first introduced into London by Mr. Henry Lee, of St. George's Hospital. In its performance each pile is seized by a vulsellum and drawn well down; the clamp is then applied so as to embrace its base, the portion above the clump is cut off with a pair of scissors curved on the flat, and a cautery-iron heated to a dull red heat is freely applied to the stump until all the vessels are well seared.

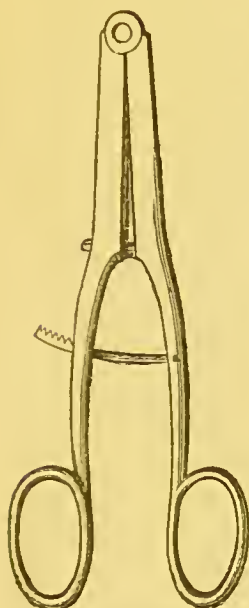


FIG. 27.—MR. ALLINGHAM'S CLAMP FOR HÆMORRHOIDS.

In my opinion, this operation has little to recommend it. As regards danger to life—after all the issue of the greatest moment—as far as my most careful researches have led me to a conclusion, it is quite six times as fatal as the ligature properly and dexterously applied.

There are, moreover, these disadvantages. The burning causes very great pain after the operation, especially if the skin is involved; secondly, hæmorrhage is more likely to occur than after the best modes of operating; greater sloughing of the parts takes place, and a longer period is required for healing. The after-results are likely to be unsatisfactory, for contraction is common, and, as with other burns, this is troublesome to overcome, for the scar-tissue, being of low vitality, is non-elastic and very liable to ulceration.

Disadvantages of

9. *Dilatation of the sphincter muscles.*

The treatment of hæmorrhoids by the complete dilatation of the external and internal sphincter muscles has been strongly advocated in France by many eminent surgeons, and notably by Verneuil, Fontan, Panas, Gosselin, Monod, and others.

Dilatation

The benefit resulting from dilatation seems to have

been accidentally discovered, and I cannot admit that the rectal physiology of Verneuil gave by any means the clue to this treatment. For my justification for this statement I must refer my readers to pp. 92 and 93 of this work.

When not
to be used

I have now no doubt that, in certain cases of hæmorrhoids, dilatation, full but gentle, of both sphincter muscles will give wonderful relief, and I have myself in many cases seen great good accrue; but, on the other hand, there are cases in which no good has resulted, and reflection would lead one to conceive that such would almost certainly be the case.

When, for example, in old-standing disease the hæmorrhoids easily prolapse at stool, and on walking, stooping, coughing, and other common physical acts, the sphincter muscles become so dilated that more dilatation could not possibly mend matters. For here no strangulation or pressure takes place; the piles themselves are large, but they do not swell and become livid when outside the body, and the discomfort and suffering result not from any 'pinching,' but from the exposure of mucous membrane to accidental friction or injury, and from the mucous and muco-sanguineous discharge; and I have often seen such cases where no remnant even of the sphincter muscles could be detected, and when the hæmorrhoids were returned a large patulous opening could be seen, into which the hand might easily be passed. To cure these patients it is necessary not only to remove the growths, but often also to obtain contraction of the anal orifice by applying freely the hot iron, so as to produce several linear cauterisations, after Voillemier's plan.

The cases best suited to dilatation are the very opposite to those just described. If, when the piles protrude, they are tightly embraced by the sphincter muscles, and immediately become swollen and livid, and perhaps bleed freely, the patient being able only with much trouble and considerable pain to return them, it is manifest that dilatation of the sphincters may afford speedy relief and even result in a cure. In such a case the muscles around the lower inch or so of the rectum are, from irritation, in a state of almost constant spasmodic contraction, consequently all the vessels

are engorged and the return of blood from the rectum is greatly impeded, and the hæmorrhoids grow with much rapidity. Complete dilatation is to be effected in the following way:—

The patient being fully under the influence of ether, you insert both thumbs into the rectum and dilate gradually, first in the antero-posterior, and afterwards in the opposite direction, using an amount of force sufficient thoroughly to overcome the spasm. You continue to manipulate the sphincters until the muscles feel as if reduced to a thoroughly pulpy condition; care must be taken to act high enough up in the rectum, so as to include the whole of the sphincter. The result is that the state of contraction is abolished and no spasm can occur; in fact, for the time, as in any overstretched muscle, paralysis has been induced. With practice and great gentleness the desired result may be accomplished without tearing the mucous membrane, or even drawing blood, but a little extravasation is usually noticed around the anus for a few days. After this, place an opium suppository in the rectum, and keep your patient recumbent in bed. What takes place? First, all the blood returns freely to the liver, no stasis remains, the piles diminish in size, the pain passes away, and in four or five days your patient may rise and go about his business wonderfully relieved. If at the end of two or three days you examine the sphincters, you will find them both capable of acting, though gently; there is no spasm. When you insert your finger the muscle closes upon it; but does not grip it; the spasm, indeed, which before the operation rendered it difficult for you to get your finger into the bowel, has gone, and with care and judicious treatment may never return, in which case the patient would, at all events for a considerable time, be cured of his hæmorrhoids.

When, in addition to piles, a fissure or ulcer exists, more immediate benefit is obtained, as great pain on going to stool will no longer be felt, and in the majority of cases the sore place will heal. In the early conditions of hæmorrhoids, when there is little or no protrusion, and, as often happens, only occasional loss of blood and spasm of the

Operation

Results

sphincter, the dilatation will, as I have personally found, really cure the patient, or at all events postpone for an indefinite time the growth of the hæmorrhoids. In the case of a gentleman, recently under my care, painful internal hæmorrhoids existed as a complication of cancer of the rectum. Careful dilatation cured the hæmorrhoids and made him comparatively comfortable.

Condition
in which
dilatation
is advan-
tageous

I strongly recommend dilatation in the following conditions : in the early stage of hæmorrhoids when the symptoms are not sufficiently severe to necessitate a radical operation ; and in bad cases of constipation, which, by pressure, cause piles, mainly of the venous kind, the sphincter being hypertrophied and the anal orifice contracted. It is also useful treatment for old people whom it would be dangerous to put to bed for long and whose arteries are atheromatous. In the later months of pregnancy, when the protruding piles become pinched by the sphincter and so cause profuse bleeding, dilatation is the safest operation to employ. In cases of advanced cardiac or pulmonary disease, in diabetes, or bad albuminuria, or when it might not be wise to entirely stop the bleeding, but where relief from the pain, consequent on the pinching of the protruding piles, is necessary, dilatation may be used with safety.

Again, when in children piles result, as they frequently do, from congenital contraction of the anal orifice, a cure may be effected by careful dilatation. I am of opinion that this is really an admirable method of treatment, devoid, as it is, of danger, causing only trifling pain, and not keeping the patient in bed more than a very few days.

10. *The treatment of internal hæmorrhoids by crushing.*

History of
crushing

In the 'Lancet' of July 3, 1880, Mr. George Pollock, of St. George's Hospital, advocated treatment by crushing. He says : 'It is now some two or three years since I commenced to put into practice my views as to crushing. The earlier attempts to crush the base of the pile were partial failures as regarded the perfect freedom from hæmorrhage.

From want of proper construction the clamp did not effectually spoil the tissues at the base of the piles; seldom, however, were more than two or three ligatures necessary, and there never was troublesome or recurring hæmorrhage encountered.' Mr. Pollock proceeded to state that the subsequent pain is much less than that which usually follows the use either of the ligature or of the clamp and cautery, and he recommended a form of crushing pincers. A plan of treatment advocated by such a sound surgeon as Mr. Pollock I could not but consider worthy of a fair and extended trial, and I at once procured the crusher from Messrs. Wright, of New Bond Street, and immediately commenced to operate, following strictly Mr. Pollock's directions. After operating on about ten cases at St. Mark's Hospital, I came to the conclusion that even this instrument did not sufficiently crush the base of the pile, and that more or less hæmorrhage nearly always resulted. In one bad case concealed bleeding took place (*i.e.* hæmorrhage into the bowel without any escape from the anus). Some hours after the operation the patient said he must go to stool, and he evacuated a large quantity of arterial blood, and this hæmorrhage continued until the clots were got rid of by injection of cold water, and plugging the rectum with wool and perchloride of iron was resorted to by the house-surgeon. As the pincer-crusher did not sufficiently arrest hæmorrhage, although I kept it applied in bad cases for two minutes, I concluded the instrument was faulty, and therefore devised a new form of crusher, in which a screw movement was substituted for the lever action. We then had an instrument capable of exercising an almost unlimited amount of crushing power (*see* woodcut on following page). It was constructed by Messrs. Krohne and Sesemann, and a good many were made before anything like perfection was attained, but now I believe that the screw-crusher is a perfectly safe instrument, provided that due care be taken in operating. I may say it is most important when buying one of these crushers to see that the edges of the sliding bar are bevelled—for if they are not, when the bar is screwed home, the piles may be cut off instead of being crushed.

Allingham
jun.'s
crusher

A few words about the method of using the crusher. As above stated, in my first dozen or more cases I followed rigidly Mr. Pollock's directions, but afterwards I thought it better to avoid crushing skin, and therefore made an incision where the mucous membrane joins the skin. I also commenced the operation by *gently but fully dilating the sphincters*—a plan I *always* adopt when operating on internal piles. The hæmorrhoid is drawn into the screw-crusher by means of a vulsellum or hook, and this being entrusted to an assistant, the bar is pushed up and screwed home as tightly as possible. The pile ought to be crushed longitudinally and not transversely. The projecting portion



FIG. 28.—SCREW-CRUSHING INSTRUMENT.

The crusher is made of solid steel, forming an open square at one end, between the sides of which a second piece of steel slides up and down. This bar is connected with the screw, which brings it firmly home against the distal end of the square, first by sliding and then by screw-action (lithotritic action), and exerts great crushing power upon any tissues which are brought between the two opposing surfaces.

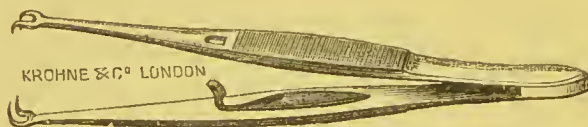


FIG. 29 represents the spring forceps used in bringing into the clamp the portion of pile to be removed.

of the pile is cut off with the knife or scissors, and the pressure may be kept up as long as the operator thinks fit; usually I now keep the instrument applied for about twenty-five seconds only. The upper part of the instrument should rest within the rectum, so as not to drag on the mucous membrane. It is from its capability of being introduced into the rectum, together with the great pressure it exerts upon the base of the pile, that this instrument is superior to the pincers, which are clumsy and large, and also to the ingenious instrument devised by Mr. Charles Smith of Brighton. In this operation care must be taken not to remove too much

tissue. If this precaution be not attended to, some amount of uncomfortable contraction is sure to take place. This, in my experience, is a great drawback to the pincer-clamp, which is difficult of adjustment; consequently more tissue may be taken away than the operator is aware of.

I have now operated upon a large number of cases, and I shall continue to employ the crushing method in selected cases only, as I am by no means convinced of its universal applicability or advantage. As regards freedom from pain, it varies considerably; in some cases there was but little suffering directly after the operation, and, as a rule, the pain after action of the bowels is not so severe as after the ligature. In other cases the immediate pain was quite as severe and prolonged as that caused by the ligature. Œdema of the external parts, when many or large piles were removed, was very marked in some of my cases; often the external swelling did not show itself until after the first action of the bowels. I think that the patients recover more rapidly than after ligature, taking, on an average, for a complete cure, 18 days. Contraction, so as to require the use of bougies or dilatation by the finger, occurred about as frequently as after any other method of operation upon piles, but far less than after the cure by the actual cautery. As to hæmorrhage, when Mr. Pollock's clamp was used, ligatures were necessary in nearly all severe cases, and in two the bleeding was so free a few hours after the operation as to necessitate plugging the rectum with a tube. I cannot say that with the screw-crusher bleeding has never occurred, but it has not done so to any extent, and ligature of a vessel has rarely been required, torsion usually sufficing. On the whole, in my opinion, crushing is a satisfactory method of removing internal piles, and is in every respect superior to the clamp and cautery. I consider it a perfectly safe operation in chosen cases.

Some surgeons use this method in all cases; this, as I have before said, is not wise. I will therefore endeavour from extensive experience to offer a few suggestions as to the cases in which it can be adopted with advantage. It

Number of
cases

When to be
used

may be used when the piles are small and not numerous, say three in number. It may be applied to remove a pile or two when operating for fistula. White piles and partial prolapse of the mucous membrane fall within the same category.

I should not advise its use in cases of very large vascular piles, in which, from excessive hæmorrhage, the blood is poor and non-coagulable.

In cases of anæmia as a result of hæmorrhage, in which recurrent or secondary hæmorrhage would probably cost the patient his life, this method of treatment is decidedly dangerous. It should not be used to remove inflamed piles.

It is not wise to crush piles when the patient is at a distance from skilled assistance, for fear of hæmorrhage coming on.

11. *Walter Whitehead's method of removing hæmorrhoids by excision.*

Mr. Whitehead, in a paper written upon the subject, published in the 'British Medical Journal,' February 6, 1887, after discussing the supposed disadvantages of the use of the ligature, and clamp, and cautery, went on to describe his method of operation. I cannot do better than quote his own words:—

Position
for operat-
ing

'1. The patient, previously prepared for the operation and under complete influence of an anæsthetic, is placed on a high narrow table in the lithotomy position, and maintained in this position either by a couple of assistants or by a Clover's crutch.

Mole of
operating

'2. The sphincters are thoroughly paralysed by digital stretching, so that they can leave no gap, and permit the hæmorrhoids and any prolapse there may be, to descend without the slightest impediment.

'3. By the use of scissors and dissecting-forceps the mucous membrane is divided at its junction with the skin round the entire circumference of the bowel, every irregularity of the skin being carefully followed.

‘ 4. The external and the commencement of the internal sphincter are then exposed by a rapid dissection, and the mucous membrane and the attached hæmorrhoids, thus separated from the submucous bed on which they rested, are pulled bodily down, any undivided points of resistance being snipped across, and the hæmorrhoids brought below the margin of the skin.

‘ 5. The mucous membrane above the hæmorrhoid is now divided transversely in successive stages, and the free margin of the severed membrane above is attached as soon as divided to the free margin of the skin below by a suitable number of sutures. The complete ring of pile-bearing mucous membrane is thus removed.

‘ Bleeding vessels throughout the operation are twisted on division. This brief description comprises the several stages of the operation.

‘ It will be observed that, beyond the chloroformist, the operation requires no skilled assistance ; a single nurse is quite sufficient, and I have on more than one occasion dispensed with assistance altogether.

‘ Contrary to general recommendation, I prefer the lithotomy position, with the legs well flexed on the thighs, and the thighs on the body. This raises the whole pelvis, and gives the surgeon a commanding view of the field of operation. I sit in front of my patient with my work on a level with my shoulder.

‘ It is better to commence the separation of the mucous membrane from the skin at the lowest point and deal with the two sides in succession, before completing the circle above, so that any oozing that may occur shall be below the work as it proceeds. The incisions must be made through the mucous membrane and not through the skin. It is very important that no skin should be sacrificed, however redundant it may appear to be, as the little tags of superfluous skin soon contract, and eventually cause no further inconvenience. If this precaution be taken, there is no fear of stricture.

‘ The attachment of the mucous membrane and piles to the sphincters is so slight that I either employ the closed

scissors as a raspatory, or use my fingers in their separation. The firmest adhesions are always found at the highest and lowest points where the fibres of the external sphincter converge. With a very little patience the whole of the hæmorrhoidal plexus can be isolated and the membrane drawn down, leaving the external sphincter almost bare and cleanly dissected. Up to this stage of the operation there is practically no hæmorrhage, for, as is well known, the arteries which supply the rectum run immediately beneath the mucous lining, and not in the loose tissue separating it from the sphincters. They are, however, necessarily cut in the next step, which consists in the transverse division of the mucous membrane just above the piles. To prevent hæmorrhage it is advisable to cut through the bowel by degrees and to twist each bleeding vessel as it is divided. After securing the vessels, before making any further incision in the bowel, I attach the free edge of the piece of mucous membrane first divided to the corresponding portion of skin at the verge of the anus. This procedure is repeated until the entire circumference of the bowel is secured to the skin. By this means I almost invariably secure healing by first intention.

‘Before closing the wound I insufflate iodoform between the raw surfaces, as I find it checks any tendency to sanguineous oozing, and facilitates primary union. For the purpose of suturing the mucous membrane to the skin, I always employ carbolised silk, and I never take out the stitches, as I find they come away of themselves without creating the needless alarm to the patient which their removal generally occasions. Indeed, after the operation, there is no real necessity ever to look at or touch the parts again.

After-treatment

‘Whilst the patient is still on the table, I introduce into the rectum a suppository containing two grains of extract of belladonna, give the external parts a final dust with iodoform, and place over all a strip of oiled lint, which is retained in position by a T-bandage.

‘For the first few days, with highly neurotic patients, I keep a bag of ice in close proximity to the rectum, and I

generally recommend a dose of castor-oil to be taken on an empty stomach on the morning of the fourth day. The patient sits up on the fourth day, and is in a condition to resume work within a fortnight.

‘I rarely find that the patient suffers much pain after the operation, though this depends chiefly on the nervous susceptibility of the individual. Some aching in the back may be complained of, as in other pelvic operations, but this is generally relieved by change of posture. If the change of posture does not answer, a hot water-bag or hot salt applied to the back will generally give immediate relief.’

Mr. Whitehead then goes on to claim the following advantages for the operation:—

Advantages

‘1. That it is the most natural method, and in perfect harmony with the most approved principles of surgery.

‘2. Excision, in addition to its simplicity, requires no instrument which is not found in every practitioner’s pocket-case.

‘3. It is a radical cure. It removes the peculiar pile-area, and I believe recurrence to be impossible.

‘4. Though no operation is absolutely devoid of risk, I consider that excision in this respect is at least on a par with the safest method yet recommended for the removal of piles.

‘5. The pain after excision is slight in amount, of short duration, and, I believe, less severe than follows any of the other operations.

‘6. The loss of blood at the time of operation is so small as hardly to merit notice; though perhaps in this respect it must give precedence to the ligature and clamp; but, so far as secondary hæmorrhage is concerned, the risks are unquestionably less.

‘In conclusion, allow me to recapitulate briefly what my contention is. I contend that the internal hæmorrhoids, which are generally regarded as localised distinct tumours, amenable to individual treatment, are, as a matter of fact, component parts of a diseased condition of the entire plexus of veins associated with the superior hæmorrhoidal, each radicle being similarly, if not equally, affected by an initial cause, constitutional or mechanical.

‘I am of opinion that, when surgical treatment becomes imperative, the extent of the mischief can only be appreciated and effectively dealt with by a free exposure of the diseased vessels, and that no procedure fulfils this purpose short of a deliberate dissection of the lower rectal area.

‘And, finally, I consider that any operation, which has for its object the removal of hæmorrhoids, is not complete which does not provide for the readjustment of the healthy tissues, with the object of securing primary union and rapid convalescence.

‘The dread of hæmorrhage in excision of hæmorrhoids is a delusion which has been fostered and sustained by potential authorities, who have, I consider, for the last thirty years, indulged in unjustifiable departures from the sound principles of general surgery.’

Criticism
of opera-
tion

In criticising this operation, which I can now do, having performed it in what I considered to be suitable cases, I come to the following conclusions: As with all other modes it is absolutely wrong and extremely unsurgical to treat all cases of piles by this operation. For piles vary as much as any other disease. Indeed, surgeons who are experienced in rectal practice often find piles complicated with fistula, fissure, &c. To adopt this method of Mr. Whitehead's in such cases would be unwise, for it is important to treat, together with the piles, the other affections by a division, &c. This will, in many cases, render impracticable the plan we are discussing. Again, when in a simple case of piles there are only one or two tumours to be removed, it is unnecessary to subject the patient to the excision of the mucous membrane of the lower part of the rectum. I do not admit that there is always the pile-area above spoken of, nor are all the arteries of the rectum enlarged because one or two happen to be so; the same applies to the veins. If there are many piles in the bowel there may be only a small amount of intervening mucous membrane left unaffected; indeed sometimes the whole lower aspect of the bowel is extremely vascular. In such cases Whitehead's operation may be used. Nevertheless, I am not at all sure that the operation is so radical as is supposed,

for when the ligature method is employed a surface is left to granulate after the piles have been separated up to their bases. This granulating surface leaves scar-tissue, which, like all other scar-tissue, contracts slightly and has not so much vitality as normal tissue. This tends to strengthen any weakness in the lower part of the bowel, supports the vessels, and is less likely to allow them to become varicose. Again, when the tissues within the anus are attacked with this vascular condition, the vessels which supply this area must also be enlarged. Now if the area is excised and the mucous membrane drawn down, the enlarged vessels, which are contained therein or just underneath, in consequence of their size will be likely to start the piles again. On the other hand, if they are ligatured high up and a splice of scar-tissue is let in, from the greater support given to the lower part of the gut the large vessels will be probably unable to dilate or increase. For they do not have to nourish such an active, soft, and elastic area.

Mr. Whitehead terms his operation simple. Simple it may be, but difficult to perform; for with the anus, rugose and elastic as it is, even after dilatation of the sphincters, it is not at all easy to separate the mucous membrane from the skin. The length of time required for the operation is an objection: this process takes on an average at least thirty minutes, whereas a skilled surgeon can operate with the ligature in less than five minutes. The hæmorrhage by this method far exceeds in quantity the amount lost when the ligature is used, and this is of great importance in those patients who have already lost much blood from their piles.

Mr. Whitehead uses silk ligatures to attach the mucous membrane to the skin, but does not think it necessary to remove them. If they are not removed, they can only come away by ulceration, which causes pain, and may, as I have seen in one case, result in fistula.

Two or three days after the operation the parts not unfrequently become swollen, and the mucous membrane then tears through the ligatures and retracts away from the skin. This leaves a large granulating surface, which may

occupy the entire circumference of the bowel, and cause troublesome contraction.

When it
may be
used

To sum up: in suitable cases—viz. those in which the whole area of the lower part of the bowel is affected with a vascular condition—this operation is no doubt a good one; but in ordinary cases, where the piles are separate and there is no so-called ‘pile-area,’ it is unnecessary and not to be recommended.

12. *Allingham Jun.’s Modified Method of performing Whitehead’s Operation.*

Reason for
invention
of new
instrument

After I had performed a few cases of Whitehead’s operation in the manner he describes, I discovered many difficulties in the process. The chief obstacles were the lax and irregular condition of the anus and the resulting trouble in separating the mucous membrane from the skin, the time required in twisting the vessels if the case was a bad one, and the length of the operation. It was after observing all this that it occurred to me to try and improve upon the operation. I wished to see how the vessels might be secured, and how the operation might be performed with greater facility. To effect this I designed the instrument (*see diagram 30*), made for me by Messrs. Krohne and Sesemann, which should be used as follows:—

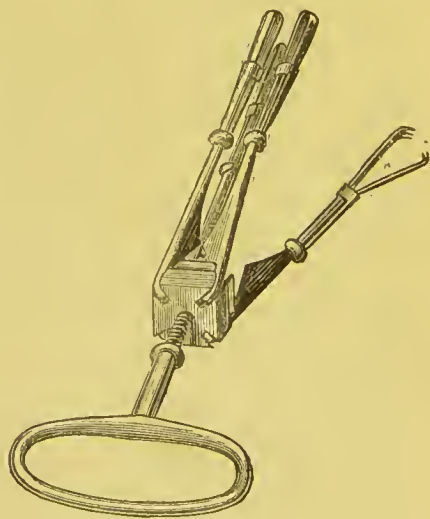


FIG. 30.

Mode of
performing
operation

The patient being in the lithotomy position, the sphincters are dilated with the thumbs; then, with the instrument closed, attach one of its arms to one part of the bowel just where the mucous membrane joins the skin. Do the same with the three other arms. Next screw open the instrument so as to make the

arms square and the tissues tense. Then the anus is dilated and square-looking, as is represented in diagram 31.

Now, with a small knife—with a finger in the bowel to guide the knife and not allow it to perforate the mucous membrane—cut along at the junction of the skin and mucous membrane all round the anus. This can be easily done with the parts thus held tense. This separation of mucous membrane from the sphincter should be effected by cutting into the submucous tissue up to the

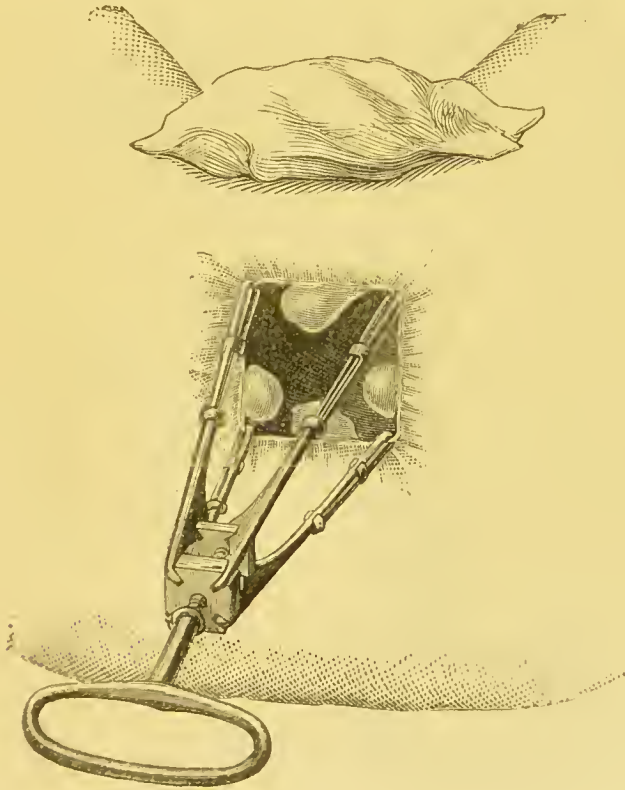


FIG. 31.

level of the internal sphincter. The assistant should turn the instrument away from the side which is being cut, so as to give more room.

When this section has been completed all round, the resulting state is as is represented in diagram 32. Then opposite the position of any large pile, take up the skin at *d* with a needle fitted with a medium catgut ligature; pass it through the mucous membrane at *c*, and then round the

stem of the pile. Return it again through the mucous membrane at B, and lastly through the skin at A. Thus you have a loop inside the bowel, with the two ends coming out through the skin. Now tie up the ligature just tight enough to prevent hæmorrhage when the piles are cut off. Treat each large pile in the same way. Then the drawn-out pile-area still attached to the dilator is to be cut off just in front of the ligatures. Finally, put in a few

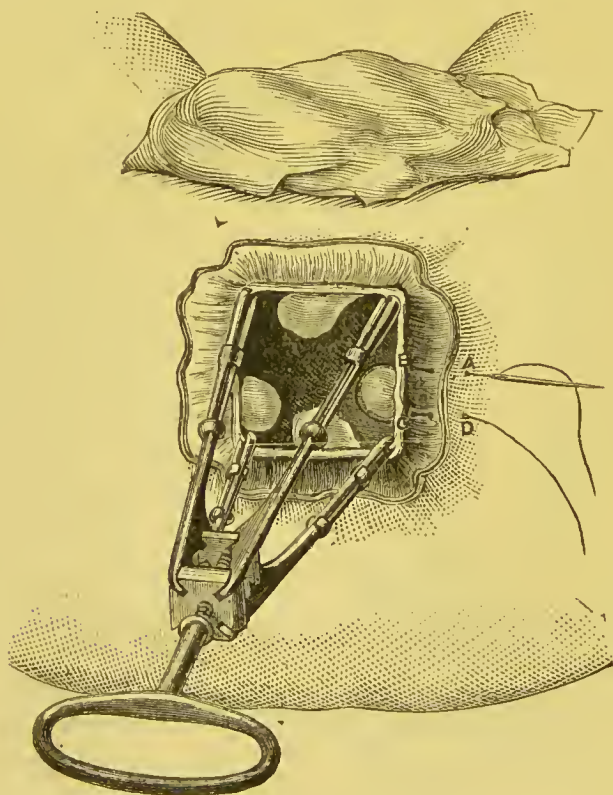


FIG. 32.

catgut sutures so as to bring to the skin the mucous membrane between the piles.

Advantages of this way of operation

By this mode of operating the important arteries in the piles are secured, there is no difficulty in separating the skin from the mucous membrane, little blood is lost, and the operation can be rapidly executed.

I use catgut sutures rather than silk ones, because they are more elastic, and relax if there be much swelling.

There is no necessity to trouble about removing them, as they are readily absorbed.

Whenever the entire circumference of the rectum is to be excised for piles, I am sure that this is the easiest, quickest, and safest method to employ.

13. *The treatment of internal hæmorrhoids by ligature.*

In expressing, as I most unreservedly do, the opinion that the ligature is the safest and best operation for the great majority of cases of hæmorrhoids, I must be understood to mean the operation usually performed at St. Mark's Hospital, viz. ligature combined with incision. The operation was devised by the late Mr. Salmon, and has been practised at that institution for more than fifty years.

The patient having been previously prepared by purgatives, is placed on the right side on a hard couch in a good light, and is completely anæsthetised; and then I always gently, but completely, dilate the sphincter muscles. This completed, the rectum for three inches is within your easy reach, and no contraction of the sphincters takes place, so that all is clear like a map before you. The hæmorrhoids, one by one, are to be taken by the surgeon with a vulsellum or pronged hook-fork and drawn down; he then with a pair of sharp scissors separates the pile from its connection with the muscular and submucous tissues upon which it rests; the cut is to be made in the sulcus or white mark which is seen where the skin meets the mucous membrane, and this incision is to be carried up the bowel, and parallel to it, to such a distance that the pile is left, connected by an isthmus of vessels and mucous membrane *only* (see diagram 33).

Method of
operating

There is no danger in making this incision, because all the *larger* vessels come from above, running parallel with the bowel, *just beneath* the *mucous membrane*, and thus enter the *upper part* of the pile. A well-waxed, strong, thin, plaited silk ligature (Turner's No. 6) is now to be placed at the bottom of the deep groove you have made, and the assistant then drawing the pile well out, the ligature is

tied high up at the neck of the tumour as *tightly* as possible (see diagram 33). Be very careful to tie the ligature,

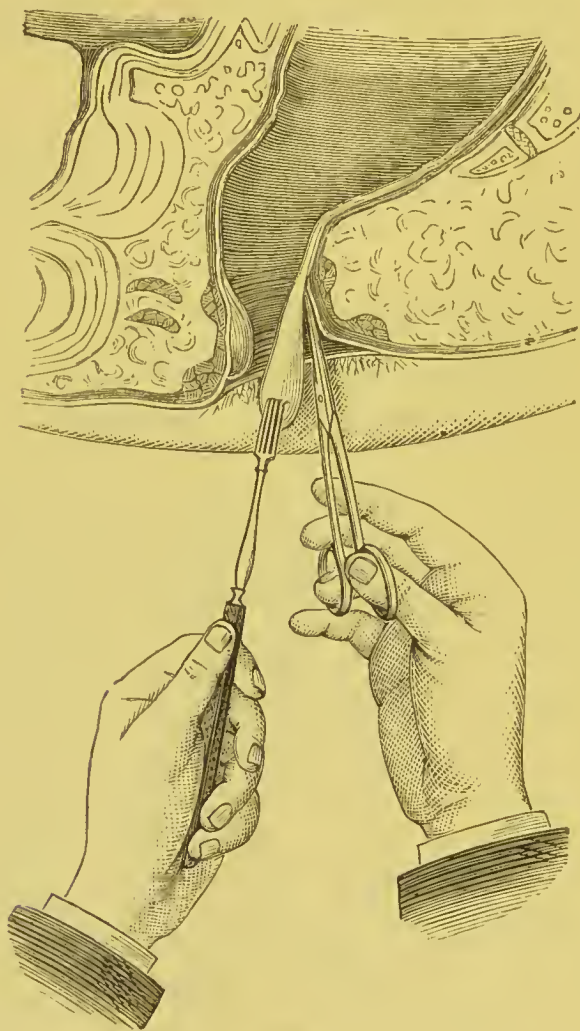


FIG. 33.

and equally careful to tie the second knot, so that no slipping or giving way can take place. I myself always tie a third knot; the secret of the well-being of your patient depends greatly upon this tying—a part of the operation by no means easy (as all practical men know) to effect. If this be done, all the large vessels in the pile must be included. The arteries in the cellular tissue around and outside the bowel are few and small, as they do not assist in the

formation of the pile, being outside it. These vessels rarely require ligaturing. The silk should be so strong that you cannot break it by fair pulling. If the pile be very large a small portion may now be cut off, taking care to leave sufficient stump beyond the ligature to guard against its



FIG. 31.

slipping. When all the hæmorrhoids are thus tied, they should be returned within the sphincter; after this is done, any superabundant skin which remains apparent may be cut off; but this should not be too freely excised, for fear of contraction when the wounds heal. I always place a pad

of wool over the anus, and a tight T-bandage, as it relieves pain most materially and prevents any tendency to straining. By this I do not mean that the anus is to be stuffed with wool, but if the parts are very vascular, a small piece may be introduced just within the anus. If much wool is inserted, it causes spasm of the sphincter and a great desire to expel it.

It is advisable to commence operating upon those piles that are situated inferiorly as the patient lies, in order that the others may not be obscured by blood, but when the hæmorrhoids are numerous, and there is a small pile either anterior or posterior, as is frequently the case, it is better to tie the small ones first, as there is danger of their being overlooked, and if they are left they are likely to grow, and a return of the piles may be confidently anticipated in a few months. I have seen many cases in which this has occurred.

Some important points in connection with the operation

When separating the pile from the bowel preparatory to applying the ligature, it is most important that the base to be ligatured should be as narrow as is consistent with the non-division of the chief arterial supply to the pile (diagram 35, A). For it will be seen that if there are many piles to be ligatured, and their bases are left large and broad (diagram 36, B), when tied up they draw the mucous membrane together and cause a great narrowing of the rectum. If this is done, on introducing the finger after the operation, it is found nearly impossible without force to pass it beyond the tied-up parts.

I can best explain this by diagrams. Should there be many piles to be tied, you get in C only very slight narrowing, but in D great narrowing.

In C there are islets of untied mucous membrane between the piles; in D there are none; consequently after the operation in C there is little or no pain, in D great pain. Again, upon the action of the bowels, the motion in C can easily pass, but in D it has actually, from the non-elasticity of the part, to tear its way past the obstruction caused by the ligatures.

I have arrived at the above conclusions from observing

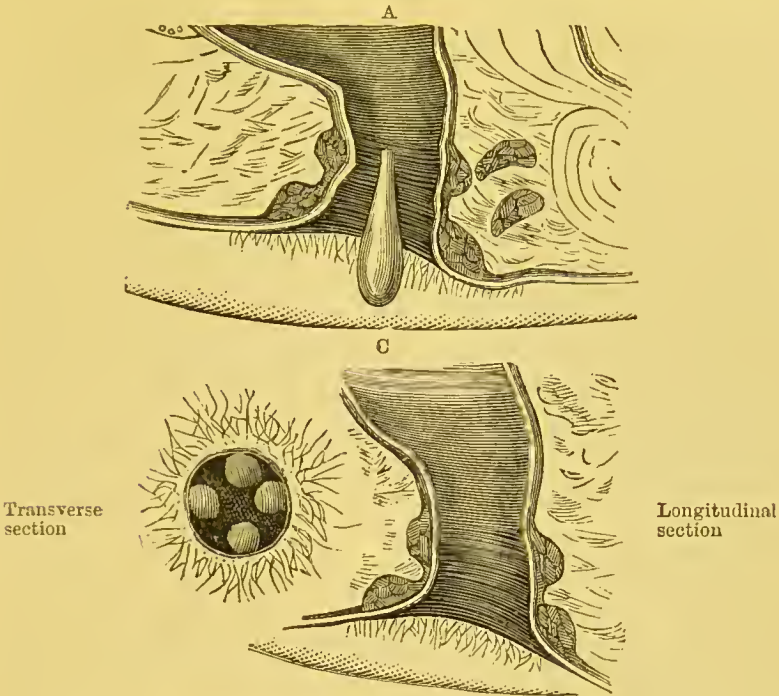


FIG. 35.

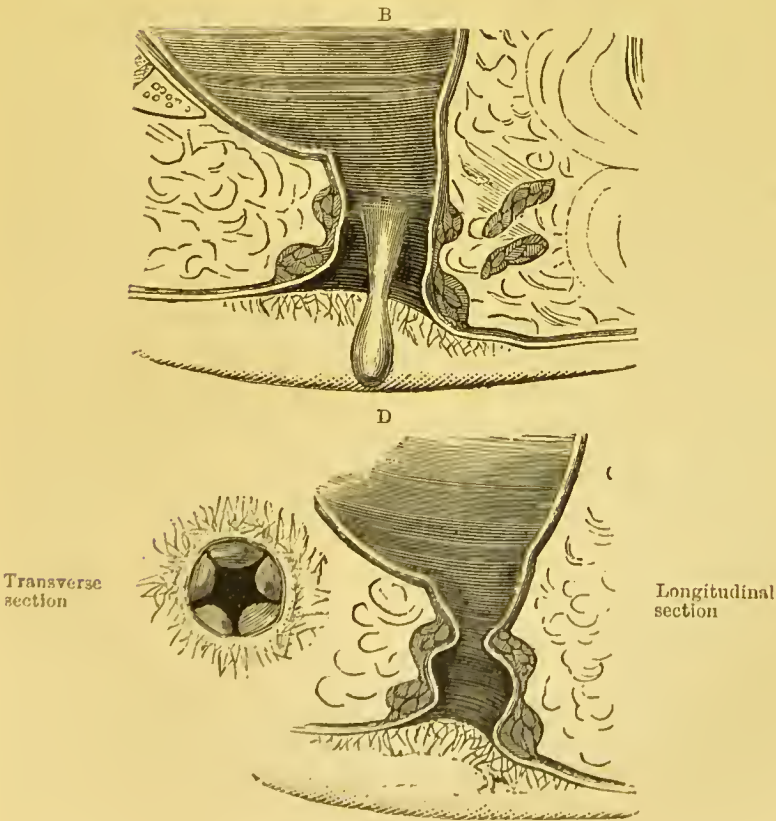


FIG. 36.

that when one or perhaps two piles only are ligatured, the pain is slight, whereas when many have been tied, unless one takes the precautions just explained in A and C, great pain is suffered, both after the operation and upon the action of the bowels.

Advantages of dilatation

Upon the patient being anæsthetised, it sometimes happens that the protruded piles slip up into the bowel again. I have seen inexperienced operators much worried by this, but you need give yourself no anxiety about it; for when the sphincters are carefully dilated, as I have before recommended, the whole rectum is fully exposed and even every abrasion can be seen; moreover, the spasmodic pain after the operation, by this dilatation is almost entirely done away with.

Spasm of the sphincter muscle is in a great degree the cause of pain and its long continuance—my patients now never have pain after about three, or at most four, hours. The only suffering that may remain is caused by spasm of the levator ani, which will act from time to time, and a retraction of the anus into the rectum takes place, attended with momentary darting pain. I was never certain why it was that patients who had suffered long from large protruding piles, which they could not keep up, scarcely experienced any pain after ligature; now I know that the sphincter muscles caused most of the pain, and those who had practically no sphincters did not have a tithe of the pain the person with a strong sphincter had.

I may also add that in patients who have very strong sphincters, and in whom it is sometimes difficult to procure sufficient temporary paralysis, the spasmodic pain should be minimised by carrying the vertical incision above the internal sphincter, so that the piles are tied above that muscle.

Statistics

I do not think in the whole range of surgery there is any procedure worthy of the name 'operation' which can show a greater amount of success or smaller death-rate than the ligature of internal hæmorrhoids.

In the year 1865, I published, in the 'Medical Times and Gazette,' some statistics of the practice at St. Mark's

Hospital, which showed that, in 1,763 operations upon hæmorrhoids, there had been 5 cases of tetanus, 4 occurring in the spring of the year 1858: 2 in March, and 2 in April. From the year 1858 to 1882 about 2,250 operations were performed, and there was not a case of tetanus; and in these 4,013 cases there was but one case of doubtful pyæmia. This death occurred in Mr. Gowlland's practice. An old Hebrew was operated on for bad piles with the ligature. A few days after, diarrhœa set in and he died exhausted. Pyæmia was suspected, but no necropsy was made, as the Jews object, so there is still an element of uncertainty in the case. The in-patient books at St. Mark's have been excellently kept, and anyone interested in the matter could easily satisfy himself that the statistics of operations and deaths resulting are worthy of entire confidence.

Let us see how the matter stands. In St. Mark's Hospital the death-rate from all causes in operations on internal hæmorrhoids by ligature during a space of more than forty years is just 1 in 670. Now, hospital practice is notoriously more fatal than private practice, yet what a brilliant result has been obtained! Referring to the four cases of tetanus occurring in St. Mark's in the months of March and April, 1858, they must be considered quite exceptional, as since that year no case of the disorder has appeared. Mr. Curling, in his work on 'Diseases of the Rectum,' says: 'In the year 1858 tetanus was very rife in London.' I have only had 3 fatal results from the ligature, both in my public and private practice, which now extends to more than 2,000 operations.

Copeland, in his work, mentions that he had only seen one death.

Bushe never had a fatal case with the ligature.

Sir Benjamin Brodie, whose experience was unusually large, stated he had never lost a case.

Mr. Syme has stated: 'In the whole of my practice I never met with a case which either terminated fatally, or even threatened to do so.'

Mr. Curling, in the last edition of his work, affirmed that, 'with one exception, no fatal case of operation by

the ligature has occurred either in my public or private practice.'

Mr. Quain had only one patient succumb in his practice with the ligature.

Mr. Ashton has not recorded a single death from his method of operating by ligature.

Mr. Gowlland, who has had a very large experience in rectal surgery, has had a most remarkable success with the ligature in hæmorrhoids; and after a prolonged trial with the clamp and cautery, has finally abandoned it.

My friend, Mr. Alfred Cooper, with large opportunities for arriving at a correct judgment, informs me that he has never had a fatal case with the ligature, and now does not employ the cautery. Mr. Goodsall is also at one with me in preferring the ligature.

Let us for a moment see what our American *confrères* think :—

Gross, in his great work on surgery, says: 'The operation (ligature) is as simple of execution as it is free from danger and certain in its results.'

Dr. Van Buren, so well known here, and whose experience in the treatment of rectal disease is very extensive, says: 'I have never had an unpleasant symptom.'

Bodenhamer states: 'I have yet to encounter my first serious accident.'

I could go on citing the favourable opinions of my American friends with regard to the safety of ligation, but I feel I need not add anything to what I have written to prove the great success in every way of the operation when properly performed, and when the patient is well treated and placed in good hygienic conditions.

In leaving this mode of treatment, I must repeat what I have previously said: this is the safest and quickest operation to employ in all cases of well-formed hæmorrhoidal tumours. For by this method of ligature there is hardly any danger of bleeding, and hence it is especially advantageous when hæmorrhage—primary, recurrent, or secondary—would be particularly dangerous, *e.g.* in anæmic patients, and in those for whom it might be difficult to immediately obtain surgical aid.

When ligation operation should be used

CHAPTER XI.

TREATMENT OF PATIENTS AFTER THE OPERATION FOR PILES.

It seems to be a custom with many surgeons to think that after a case of piles has been operated upon, no further treatment is requisite. The parts are rarely looked at again, and after about a fortnight has passed without any examination, or only a very cursory one, the patients are supposed to be well and are allowed to go about their work. It is in consequence of the frequency of this that I have determined to give in detail the treatment of a case *after operation*; for it is only by careful attention that a satisfactory cure can be assured.

After the operation the bowels should be confined for three or even four days. I find a solid one-grain opium pill given half an hour after the operation, and repeated every two hours twice, the best to begin with; the pill arrests or prevents vomiting; later on, if required, a draught may be administered. The formula I often use is the following:—

Confining
bowels

Pulv. cretæ aromat	ʒj
Liq. opii sedativ.	℥xv
Spt. æther. nit.	ʒj
Mist. camph. ad	ʒjss—M.

To be taken night and morning or three times in the day for two days. In very bad cases and in delicate persons I occasionally keep the bowels quiet for a much longer period than four days. I have done so for a week or ten days, and I think, in some instances, with very manifest advantage. The diet at first should be light: soup, beef-tea, a little boiled fish, milk gruel, tea and toast, will be quite sufficient; no alcohol at all should be taken; perfect rest in bed enjoined.

Retention

It is not uncommon for retention of urine to be consequent on operations upon piles. This retention is by no means unusual in women, but I have found it occur much oftener in men. When this difficulty occurs, male patients should be told to kneel up in bed, and warm flannels may be placed above the pubes. The bandage applied at the operation should be loosened, as it may press upon the perineum, and so stop micturition. Much straining must be avoided under any circumstances, and if, after a fair trial, the patient is still unsuccessful, a Jacques catheter should be passed. After a few days, generally when the bowels have been opened; the power to pass water will return, but I have seen nervous patients suffer from retention for ten to fourteen days.

On the morning after the operation, on visiting my patient I remove the outside pad of wool, and if I find any wool in the anus or sticking to the wound, I apply a poultice to soften the dried blood and assist in loosening the wool; moreover, if there is any pain, the application of a poultice greatly relieves it. Sometimes the patient suffers from spasm of the levator ani, which may be caused by a small piece of wool becoming fixed within the sphincters. Again the wool should be removed on the second day, and even on the first, if there is no pain, a pad of wool soaked in sanitas, Condyl, or thymol, &c., should be applied to the part, for it keeps it moist, and tends to lessen the smell which is generally present. On the third or fourth night, according to the state of the patient, I always order the following aperient:—

R Pil. hydrarg. gr. ij
 Pil. col. et hyoscyami gr. viij—M.

and the next morning I give, if necessary, one of the aperient mineral waters, or the ordinary black draught.

Purgative

It is highly important to administer a purgative which is sufficiently powerful to compel the bowels to act irrespective of any will on the part of the patient. If the purgative is not strong enough, the moment the bowels are inclined to act, the patient may resist in consequence of the pain.

When the bowels act the patient may get out of bed, and sit on a night stool, for the sitting position aids in the expulsion of the fæces. If, however, he is very anæmic or ill, the motions should be passed while he is in the recumbent posture.

It is well to tell your patient that some temporary, and possibly rather acute, pain may be experienced on the first action of the bowels, and also that a slight discharge of blood *may* take place (it by no means always occurs); if you neglect this, needless alarm is often created, the patient imagining, if he sees any blood, or has much pain, that all his old trouble has returned.

Sometimes, when the bowels are acting for the first time after the operation, there is great and persistent straining with little result. When this occurs the bowel must be examined, for a hard mass of fæces may be blocking up the anus. If such an obstruction be found it should be broken up with the finger, and an enema of warm gruel and olive oil should be administered; to keep on repeating strong purgatives (as is too commonly done) is absolutely useless and detrimental, until the obstruction has been broken up and removed by enemata.

Cause of straining

After the first action of the bowels, apply a warm poultice or the lead and milk lotion (mentioned in the chapter on External Piles), whichever is most comforting to the patient.

Treatment after first action of bowels

The bowels should now be kept acting daily by means of gentle purgatives such as

Pul. glycyrrhizæ co.	3j to 3ij
	o. n.
or Podophyllin	gr. ½
Ext. belladonnæ	gr. ½
Ext. tarax.	gr. iij
	o. n.
or Liq. ext. cascara sagrada	3ss
In water at bedtime.	

or any of the mild purgatives previously mentioned.

On the fifth day the wounds must be treated according to circumstances; if they are inflamed, sedative lotions or

ointments should be used. When the ligatures have separated or when sloughs have come away, the wounds, after the action of the bowels, should be gently syringed with a weak solution of Condly, carbolic, sanitas, &c. This washes away any motion that may have been caught in the wounds. Then each separate wound should be dressed in the following way: a small strip of wool smeared with ointment must be passed with a probe and allowed to rest gently upon each raw surface.

The patient can greatly assist in the dressing by bearing down while the wool is being inserted.

It is hardly necessary to say that the ointments and lotions should be varied according to the nature and state of the wound.

Importance
of daily
passage of
finger

After the first week, the finger, well anointed with the ointment in use, must be passed into the bowel every day, to make sure that no contraction is resulting from the operation. This is most important, for when rapid healing is taking place contraction will sometimes ensue.

Recumbent
position
necessary

For the first week after the operation the patient should be strictly confined to his bed; then, if all has gone well, he may get up daily and lie for a few hours on a sofa, but he should not be allowed to walk about or remain long in the erect position, for although the patient is convalescent his wounds are generally still unhealed.

For years I have digitally examined all my patients upon the thirteenth or fourteenth day after the operation, and in the great majority I have not found the rectum perfectly sound; frequently some unhealed sore remains, and in my opinion such a patient cannot be said to be well and allowed to go about his ordinary avocations, without incurring considerable danger. The veins of the rectum are destitute of valves, and only badly supported by areolar tissue; these sores, therefore, much resemble in their condition varicose ulcers of the legs; and we well know in such cases rest in the horizontal position is absolutely necessary to ensure a speedy and certain cicatrisation. When, from a low condition of health, or from a too early return to the erect posture, wounds in the rectum are long

in healing, ulceration will in all probability take place, with contraction as an almost certain result. It is in consequence of the great risk they run when allowed to get about before the wounds are completely healed, that I impress upon my patients the necessity of perfect rest until the bowel is sound. Nevertheless I have had patients who have gone about their business with ligatures on their hæmorrhoids, and have sustained no injury. Here is a case of that kind. A gentleman on the Stock Exchange was operated on by me some years ago; it was rather more than an average case; five ligatures were applied. On the day following the operation some sudden turn of the markets rendered it absolutely necessary for him to go to town. When I called upon him, to my surprise I found that he had left home; and for three days consecutively he went to his office and remained there for five hours transacting his business, as he afterwards assured me, with very much less inconvenience than he had frequently experienced before the operation, when the piles came down. He was, in the end, none the worse for his temerity, but it is an example by no means to be commended or followed. On another occasion a naval officer found himself compelled to go on board his ship on the third day after operation, journeying to Portsmouth for the purpose. This gentleman did not suffer any serious inconvenience. Mr. Quain, in his work, relates a parallel case.

Pain after the operation varies according to the constitution and nervous sensitiveness of the patient, and also as to the condition of the parts *before* the operation; but, as I have said, by performing gentle and full dilatation, pain is very considerably alleviated.

If pain should be acute at first, push your opium or hypodermic injection (Morph. gr. $\frac{1}{4}$, Atropine gr. $\frac{1}{60}$ is my favourite formula). A sponge wrung out of very hot water and applied to the sacrum nearly always affords relief, and however sharp the pain may be at first (it is always exaggerated by the want of moral control brought about by the inhalation of ether), in two or three hours it will have subsided, and you may comfort your patient by the assurance

that the worst of his troubles will soon be over, and the pain will most surely, if gradually, become less.

The after-treatment advocated above, applies to all the methods of operating for internal piles ; but I will add that, when the ligatures have been used, they should be gently pulled daily, beginning on the day after the first action of the bowels. By this plan the ligatures usually separate upon the fifth or sixth day.

CHAPTER XII.

COMPLICATIONS OF HÆMORRHOIDS.

THE heading of this chapter must not lead my readers to think that the complications to be mentioned only occur in conjunction with piles. Such a supposition would be erroneous, and I have only chosen this phrase because complications are more frequently found together with piles.

Complications not confined to hæmorrhoids alone

It must be understood that a case is called one of piles, if the piles predominate; but it does not follow from this that a fissure, fistula, or polypus may not also be co-existent. In like manner, if a fistula is the chief cause of a patient's pain and trouble, his case is said to be one of fistula, but piles or fissure may also exist here, and may require quite as much treatment as the fistula. If complications are not carefully looked for, although the patient's predominant ailment may be skilfully and thoroughly treated, yet he will not recover his full health in consequence of other accompanying rectal maladies.

I. Complications in conjunction with hæmorrhoids.

Fissure, or small painful ulcer, is very often associated with hæmorrhoids, and a careful examination is needed to detect it, as one of the tumours may overlap the fissure so as entirely to conceal it. Always suspect fissure or ulceration when your patient tells you he suffers pain on defæcation, or pain continuing long after the bowel is relieved.

Fissure or ulcer

In operating on hæmorrhoids, when fissure or ulcer was found to exist, I always used to divide the superficial fibres of the sphincter muscles so as to set them at rest. I now find this unnecessary, as the dilatation I make of those muscles allows the fissure or ulcer to heal. It is well in these cases not to omit examining the upper part of the

fissure, to see if any sinus runs up from it; if so, it must be laid open.

Fistula

Fistula is not so common a complication, but I have often seen it. If the fistula be well marked there is no difficulty in the diagnosis, but if it be of the blind internal variety, or if the external orifice be very small and concealed, as it may be, by an external flap of skin, it is quite possible to overlook it. I have frequently met with examples of this. I will relate a case in point.

A gentleman consulted me on the recommendation of Sir Risdon Bennett. His statement was that three months before he was operated upon for piles, and was pronounced by his surgeon to be cured, but he still had occasional pain and throbbing in the anus; there was also a constantly recurring discharge which soiled his linen; it ceased for a day or two and then returned. He had mentioned this to the gentleman who operated upon him, and had been told he was only suffering from a little weakness of the bowel, which would soon right itself; of this, however, the patient could not feel convinced, and he was alarmed, thinking that he would have a return of his hæmorrhoids. The frequent discharge and staining of his linen gave him great concern, and worried him to a degree which seemed almost absurd, and quite disproportioned to the gravity of his case. This I have often observed in persons of refined feelings. In hospital practice patients do not often complain of a discharge unless it be very copious or accompanied by pain. On a careful examination of this gentleman I detected, just at the verge of the anus, and hidden by a small tag of skin, a minute orifice; a fine probe passed into this and through a short sinus, not quite three-quarters of an inch in length, into the bowel. From the history of the case (there having been always the same purulent discharge) I had no doubt that this slight fistula had existed in conjunction with the hæmorrhoids, but the major malady had masked the minor one. I laid open this sinus, and in a week the patient was quite well and relieved from his annoying discharge.

Polypus

Polypus or polypoid growths are sometimes found in conjunction with hæmorrhoids. I operated some time back on the wife of a well-known physician, who, in addition to hæmorrhoids, had a large-sized, hard, pedunculated polypus.

When the polypoid growths exist, they may be found on the piles, or be situated in the sulci between them. They must always be removed, as they cause great irritation, and from dropping into the wounds may prevent their healing.

Impaction of fæces is sometimes met with on commencing an operation for piles; for although the patient may have been freely purged, and may assure you that the bowels have acted well, nevertheless, the motion may have been only liquid and have left behind a hard mass of dried fæces. If such a mass be discovered, it must be broken up and washed away with an enema before proceeding with the operation. If it is not removed, it will retard healing and cause great pain and discomfort.

Impaction
of fæces

A lax and feeble condition of the sphincters is sometimes found in old people, and in cases in which large venous piles have existed for a considerable period and have been constantly prolapsed. In these instances it is not advisable to perform the preliminary dilatation, and occasionally, instead, it is expedient to remove some of the loose mucous membrane and skin, so that slight contraction may follow the operation.

Lax condi-
tion of
sphincters

When examining a case of hæmorrhoids, never omit to pass the finger well into the bowel to ascertain that no stricture, ulceration, or malignant disease is present. I have made the same remark before, but I do not mind repeating it, as I have so often seen this grave error committed. It has many times occurred to me to find that patients have been operated upon in metropolitan hospitals by eminent surgeons, for piles, when they were suffering at the same time from cancer or ulceration of the bowel. I need scarcely say that an operation under such conditions cannot be of any lasting benefit to the patient.

Malignant
disease, &c.

A healthy-looking young man, æt. 28, came into my consulting room, sent to me as a case of piles for operation; a few questions, however, satisfied me that there was something besides the piles. An examination revealed carcinoma high up the rectum, the lower margin not being nearer than three inches from the anus. The termination upwards could not be reached, but by using my ball-staff I found indications of contraction and great hardness at the upper part of the rectum or commencement of the sigmoid flexure.

II. Complications following upon operation for hæmorrhoids.

I need only mention the chief direct complications that may follow the operation for piles.

They may occasion you considerable anxiety if you are not aware that they may sometimes arise.

Loss of
power in
sphincter

When large hæmorrhoids have been removed, the patient may at first experience a sense of weakness and a slight loss of power over the anus; this may be explained by the fact that the piles acted as a plug, but at the same time caused, from their prolapsing, a weakening of the sphincters. Now when the plug has been removed by the operation, the only guard against the passage of fæces is a weakened sphincter.

Moreover, the change that the operation has effected in the mucous membrane gives rise to a dulness of appreciation when fæces come near the anal orifice. Thus the patient cannot contract the anus quickly enough to prevent some discharge of wind or motion.

This need not cause any apprehension, for in a very short time the power of the sphincter will return, and the appreciation of contact become acute.

This may be hastened by bathing the anus night and morning with cold water, and by injecting daily into the rectum about one ounce of some stimulating lotion.

Impaction

Impaction or accumulation of fæces in the rectum or colon is another complication worthy of mention. I have said that, prior to operating upon piles, the bowels ought to be thoroughly cleared; this precaution is too often neglected, or, in consequence of the patient's state of health and the condition of the rectum, it is sometimes impossible to completely empty the colon. Although at the operation no fæces may be found in the rectum, yet they may soon descend from the upper bowel and become blocked in the rectum. It is astonishing what large and hard masses of faecal matter may have been retained in the large intestine for some considerable time, when there is any affection of the rectum. Therefore the surgeon must always be alive to the possibility of impaction after the operation. For my own part, I am tolerably certain that, in the majority of those cases where the healing process does not go on kindly, a loaded colon and congested liver are the chief causes.

I saw with a professional friend a lady upon whom he had operated for slight internal hæmorrhoids, and in whom the wounds became unhealthy and refused to heal. Prior to the operation the patient was not in bad health, and might reasonably have been expected to do well.

Before examining her rectum I inquired as to the state of the bowels for some time past, and from the account given I was quite satisfied that a good clearance had not been effected. Moreover, although action had taken place since the operation, there had been only scanty relief, and when the patient got out of bed and stood up, she experienced inclination to go to stool, and abortive straining on doing so. On introducing my finger into the bowel I found it quite blocked up by hardened fæces. This impaction was got rid of by manipulation and enemata; then aperients were given by the mouth, and a large quantity of lumpy fæces was evacuated. When I saw this patient again in about ten days the wounds were nearly healed.

I operated for hæmorrhoids upon a young gentleman whose bowels, he said, generally acted fairly, and had done so freely before the operation; but at the end of a week he complained of abdominal pains and desire to go to stool, without having a satisfactory evacuation; this led me to examine his abdomen, and I found his colon quite dull on percussion, nearly throughout its course. A brisk purge administered daily for three days, and followed by enemata, produced most copious action, and soon improved his general condition, and hastened the healing of the wounds.

Another marked instance of this complication occurred in a lady recommended to me by my friend the late Dr. Daldy. She was a delicate person, who had long suffered from the frequent combination of uterine and rectal disorder. She had a considerable and painful prolapsus of the bowel when she came under my care, her uterine malady having been previously greatly ameliorated, if not cured. The bowels acted daily and, according to her statement, sufficiently. She had the usual aperient administered, and also an enema prior to the operation, with good effect; but about the time of the separation of the ligatures she was seized with severe abdominal pains and straining, and on examination I found the rectum blocked up by hard, dry, friable lumps of fæces, which were with very great difficulty got rid of; after this aloetic aperients procured the evacuation of a really enormous collection of fæces; it seemed as if the whole colon had been fully charged. All this delayed her recovery, and caused a great deal of pain, but eventually she got well.

Contraction of
anus

It sometimes happens that, after a severe operation upon internal hæmorrhoids, contraction takes place in the bowel on the healing of the wounds. This contraction is not usually at the anus, nor does it affect the skin, but mucous membrane only; time alone will generally remove it, but as it may occasion straining and distress to the patient, I advise the passing of a bougie for a few nights, or what answers as well, and is less alarming, I direct the introduction of the forefinger, well anointed, into the bowel night and morning. In rare cases, when the wounds have been long in healing, and also if a great deal of the bowel has been removed longitudinally, a tight hourglass-contraction takes place, leaving an aperture sometimes only sufficiently large to admit a No. 12 catheter. The contracted part may or may not be ulcerated, the patient suffers much pain, has obstinate constipation, cannot sit up without a sensation of bearing down and great discomfort, and sometimes suffers from eczema caused by the unhealthy discharge. This is the form of stricture which I have so frequently found following operations when heated irons are applied, but it may also arise after any other operation if care be not taken to pass the finger daily when the wounds are healing. I very often see this result in the practice of others, and have had it occur in my own cases. To get them well requires great attention, gentleness, and perseverance; usually constitutional treatment is required as well as mechanical; the patients are nearly always weak and unhealthy, often strumous. The malady is more common in women than in men, and the uterus therefore usually requires attention. Sub-involution, retroversion, and anteversion, with flexion and chronic endometritis, are the diseases frequently complicating the rectal mischief, and no surgeon can hope to cure those patients who does not take into consideration the state of the uterus.

Here is an instance of contraction:—

J. H., æt. 32, was operated upon by me for very bad internal piles. He was left under the care of his general practitioner. I did not see him again until three months after the operation, when he called upon me one morning and told me he was not quite well. I asked him to

relate his symptoms, which were as follows: Great straining on going to stool; the bowels only acting after severe purgatives, with the feeling that, after they had acted, the rectum was still unemptied. He had occasional discharge of watery matter, which caused extreme irritation about the anus. I at once asked him if the bowel had been examined with the finger since the operation. To this he replied in the negative. On examining him I found, as I expected, a firm contraction about $1\frac{1}{2}$ inches up the bowel, through which I was unable to pass my finger. As his condition was so bad, and as three months had passed since the operation, I most strongly advised him to lay up and to allow me to divide the contraction. This I did in several places, and after the passage of bougies (increasing in size) for fourteen days, I dilated his rectum up to its normal calibre. I also counselled him to pass a full-sized bougie once a week for the next two months. I have seen him since, and he was perfectly well.

This certainly would never have occurred had the finger been passed daily until the wounds had healed, commencing a week after the operation.

Ulceration, or a single ulcer or fissure, with or without Ulceration contraction, may follow upon the operation for piles, if the patient is allowed to get up before the wounds are healed. An ulcer may become indurated, and may necessitate another operation to effect a cure. This shows how imperative it is to keep the patient quiet until his wounds are well.

James B—, æt. 30, consulted me because he was not well from an operation of piles performed two months previously. He told me that the surgeon kept him in bed for only fourteen days, and then urged him to resume his work, assuring him that he was quite well, although he informed the surgeon that he had pain lasting for half an hour after each action of the bowels. On examination I found a well-marked ulcer situated just between the internal and external sphincters. This I attempted to cure by palliative measures, but after a fortnight, finding my patient no better, I got his consent to divide the ulcer, which soon cured him.

I have sometimes seen abscess and fistula in the bowel Abscess
and fistula follow the operation for piles. These should always be looked for when the suppuration is more profuse than is consistent with the separation of sloughs or the healing of wounds.

Bubo, or pelvic suppuration, may also be a sequela of Bubo these operations, and is most likely to arise in patients of

a strumous nature. I have seen several such cases. Here is one:—

F. M——, æt. 50, was operated upon by me for bad bleeding piles. At that time he was weak and broken down in health. The wounds healed well, but after the operation his temperature kept high and he suffered from very obstinate constipation; but there was no contraction or complication about the rectum. About three weeks later he complained of pain in the left iliac fossa, but nothing could be felt. I was afraid he might have malignant disease of the sigmoid flexure, but could not detect this by the passage of bougies or by deep pressure into the iliac region. Very soon his left leg became contracted, and, as the temperature was continuously high, I felt certain some suppuration was going on in the pelvis. Accordingly ether was administered, and then I found a fluctuating spot about three inches below the anterior superior spine of the ilium on the left side. This I carefully cut down upon, and pushing back the peritoneum, I let out about two ounces of pus. After this he got quite well.

Pyæmia,
erysipelas,
&c.

I may mention that I have in the previous pages only narrated in full the complications that most usually follow on the operation for piles; but pyæmia, erysipelas, &c., may of course supervene, as they do on operations in other parts of the body.

CHAPTER XIII.

HÆMORRHAGE AFTER OPERATIONS UPON PILES.

THIS will occasionally take place, and it may be either primary, recurrent, or secondary.

Just as in midwifery you may go on for years without the occurrence of an untoward event, and then get a batch of troublesome cases, so it is in this operation—you may perform it a large number of times without the slightest unpleasant symptom resulting, and then have a run of cases which cause you more or less anxiety.

When called to cases of hæmorrhage, always arm yourself with a full-sized, bell-shaped sponge and plenty of cotton wadding; take also some subsulphate of iron, or, if you have not that, powdered alum or tannin.

If the operation for piles be carefully done, primary hæmorrhage is very rare; occasionally, when large and very vascular hæmorrhoids are ligatured, and there is also much superabundant skin cut away, a small vessel, even after pressure has been applied, may continue to bleed.

Primary
hæmor-
rhage

When a bad case of piles has been operated on there is frequently an oozing of serum and blood from small vessels and capillaries of the surface from which the piles have been removed. To those unaccustomed to these operations this may occasion needless alarm, and cause them to loosen the bandage, take off the pad of wool, and try to find the vessels.

If, an hour after the operation, one looks at the bandage and wool applied to the anus, he will generally see that they are stained with blood. Should this be seen, place more wool upon the parts and tighten the bandage. The wool, however, may be soaked with blood, and there may be some trickling of blood from between the skin and the pad. This must take place if the sphincters have been dilated prior to

operating, for there cannot be retention of blood in the rectum without some of it oozing outside, as there is no contraction of the anal orifice. In cases in which this trickling cannot be stopped by tightening the bandage, the nurse should be told to place her hand over the parts and continue this pressure for an hour or two. That failing to arrest the oozing, it is then necessary to remove the wool to see if there is any large vessel that is causing this trouble. Should no important vessel be discovered, a little wool, powdered with subsulphate of iron, alum, or tannin, must be introduced into the anus and pressure continued. The buttocks should be exposed and an ice-bag applied. This is generally successful.

Recurrent
hæmor-
rhage

But a much more serious matter is recurrent hæmorrhage. Although the bleeding may have been completely arrested at the operation, and none may have occurred for some hours or even a day—yet, when the patient recovers from the operation, the arterial tension increasing and perhaps the temperature rising, recurrent hæmorrhage may supervene.

When the surgeon is called to such a case, he should at first employ the treatment already described, but at the same time wait awhile to see if the bleeding continues. If it does, and especially should the patient express a desire to pass wind or fæces, and if he complains of feeling distended and uncomfortable in the abdomen, then, most probably, there is internal bleeding going on. Prompt action is then necessary. At once remove the bandage, pass the finger into the bowel, and tell the patient to bear down. This is generally followed by a great outpour of dark blood and clots. Syringe the rectum well with cold water, for this empties the bowel of warm, fomenting blood, and may cause contraction of the vessels, and thus arrest the hæmorrhage. If the bleeding still continues pass two fingers into the rectum and examine round the bowel until you find the part where pressure controls the hæmorrhage.

If another medical man is near, send for him at once to administer ether, all the while keeping your fingers on

the bleeding part. When such aid is not procurable, let the nurse apply the digital pressure and give the ether yourself. As soon as the patient is thoroughly narcotised, let the nurse continue administering the anæsthetic, which she may safely do if you watch the patient's breathing. Then with a vulsellum pull down the bowel and pick up the bleeding vessel. If this cannot be found, tie up, or leave clips on, the piece of mucous membrane at the place where pressure with the fingers arrested the hæmorrhage. If this, too, proves ineffectual, the bowel must then be plugged in the following manner :—

Having passed a strong silk ligature through your cone-shaped sponge near its apex, bring it back again, so that the apex of the sponge is held in a loop of the thread. Then wet the sponge, squeeze it dry, and powder it well, filling up the lacunæ with the iron or other astringent. Pass the forefinger of your left hand into the bowel, and upon that as a guide push up the sponge—apex first—by means of a metal rod, bougie, penholder, or a rounded piece of wood, if you can get nothing better. Now, this sponge should be carried up the bowel at least five inches, the double thread hanging outside the anus. When this is so placed fill up the whole of the rectum below the sponge thoroughly and carefully with cotton wool well powdered with the alum or iron. When you have completely stuffed the bowel, take hold of the silk ligature attached to the sponge, and while with one hand you pull *down* the sponge, with the other hand push *up* the wool. This joint action will spread out the bell-shaped sponge, like opening an umbrella, and bring the wool compactly together; if this is carefully done no bleeding can possibly take place either internally or externally. Half-measures in these cases are worse than useless, as valuable time is thereby lost. This plug should remain in at least a week, and it may be retained a fortnight or more. It may be thought that much straining and pain would be caused by it. I assure you this is not the case; if you keep your patients fairly under the influence of opium they very rarely complain. The only trouble may be wind, and this often will find its

Use of
sponge as a
plug

own way out. If you fear this, and have a male catheter or flexible tube handy, you may introduce it through the centre or by the side of the sponge, packing the wool around it. I have done this several times, and found the patients passed not only wind through it, but also broken-down blood and liquid fæces. I am sure you need never fear a case of hæmorrhage if you only plug methodically and thoroughly. I think very highly of the subsulphate of iron; no styptic in my opinion answers as well. It is far superior to the perchloride, as it does not cause burning or pain.

Gowlland's
tubes

Practitioners who are not frequently operating on hæmorrhoids cannot be expected to possess all the most modern appliances, but I can recommend my friend Mr. Gowlland's tubes, which are made of vulcanite, shaped like a bougie, seven inches in length and about one inch in diameter; the base terminates in a rim, which is perforated, so that it can be sewn to a bandage. I have had tubes made with holes two inches from the apex, so that sponge can be sewn on around them. When this is passed up the rectum you pack wool all around it. The advantages are obvious; flatus, liquid fæces, and broken-down blood can pass; you can also inject frequently a weak solution of Condyl's fluid, which will keep the part clean and sweet; do not use carbolic acid, as it frequently gives rise to much irritation.

Secondary
hæmor-
rhage

Of late years I have had recurrent hæmorrhage occur much less frequently. As a rule, I should say what we have most to fear is *secondary* hæmorrhage, which usually comes on at or about the time of the separation of the sloughs. This form of bleeding occurs generally in elderly people of broken-down constitutions, or in those who have been very free livers. I may say, as far as my experience goes, that this hæmorrhage is usually more venous than arterial. Of course there are exceptions to the rule of its occurrence in elderly people.

This bleeding generally takes place internally in consequence of the sphincter having partially recovered its tightness, and thus preventing the escape of blood. The patient will tell you he feels something running inside the

bowel, and this may continue until the rectum (and even the sigmoid flexure) is full of clots and fluid blood. He then has intense desire for his bowels to act, and passes a quantity of blood, which may be the first indication of hæmorrhage having occurred.

I have found it utterly futile in cases of secondary hæmorrhage to try and place a ligature round the vessels, as the tissues are generally so rotten. It is usually the large veins or venous sinuses which are opened by sloughing or ulceration, and when you attempt to tie or clip the vessels, they break away.

The bowel must at once be syringed out and plugged with a sponge, as previously described.

The after-treatment of these cases requires considerable care and attention to details; generally the patient is very greatly alarmed at the bleeding, but his fears will be soon allayed if he finds you are prompt and confident of your own powers to succour him. After the hæmorrhage is arrested by the plugging, the recumbent position must be maintained, and on no account whatever should an upright posture be assumed. If the packing be tight, frequently retention of urine will occur, and you must pass a catheter; but you should, if possible, at once teach the patient to introduce the instrument for himself. A Mercier's flexible coudée catheter goes so readily into the bladder that any but the most timid person may in one lesson acquire the art. The buttocks and lower part of the back should be kept cool. I employ dry cold, by means of ice in an india-rubber bag, applied to the sacrum. If the patient is exceedingly collapsed do not apply cold. I have found hot sponges to the sacrum advantageous, and a hot bottle placed to the head wonderfully revives patients who are faint from severe hæmorrhage. Stimulants may be given, but it is better, if possible, to wait for some hours and observe what amount of reaction takes place; this is sometimes considerable, and will make you wish that you had withheld alcohol or used it very sparingly. As soon as it can be taken, nourishment is to be given, and Liebig's cold soup, which can be quickly prepared, I have found a wonderful

After-treat-
ment

restorative.¹ Hot liquids, I need scarcely say, are to be avoided. I do not think it necessary to keep these patients entirely on fluid diet; directly they can take solid food let them have it, but it should be nourishing and easy of digestion. As secondary hæmorrhage generally occurs in persons whose blood and tissues are deficient in plastic material, the aim of treatment must be to remedy that defect, and thoroughly nutritious food judiciously administered is, I imagine, the most valuable means to that end.

I do not place much trust in the internal use of astringent remedies. The hypodermic injection of ergotine I shall use when I have a case that I consider not very urgent, but I always prescribe iron, not only as a hæmodynamic, but also for its blood-repairing property. I prefer either the tinct. ferri perchloridi, or the liq. ferri peracetatis. If the stomach bears this well, full doses may be given twice or thrice in the day; in addition, a pill containing one grain of solid opium night and morning, or at night only, if the bowels do not exhibit any tendency to act and there is no straining, will generally meet the requirements of the case.

The methods of arresting hæmorrhage that I have already narrated are the best to employ in all cases, but I may add to these a few other suggestions which have sometimes succeeded.

Ligatures
as tourni-
quet

Primary and recurrent hæmorrhage following the use of the ligature, may sometimes be stopped by drawing down the bowel by the ligatures, the patient assisting you by straining. You will then, in all probability, be able to see the bleeding vessel and tie it. If you do not see it, or if a general oozing is apparent, pass all the ligatures through a hole made in the middle of a small round sponge, then tie them across a piece of stick, and twist this round. In this way you construct a sort of tourniquet, and can make firm and strong pressure with the sponge, so that no bleeding can

¹ Liebig's eold soup is prepared thus: Take 8 oz. of raw lean beef, finely minced, put it into 20 oz. of eold water, add 10 drops of strong hydrochloric acid and a little salt; let it stand half an hour and then strain. One or two ounces may be given every half-hour.

take place. In a few hours after it is all arrested the stick may be removed.

In the old plan of operating with a double ligature and transfixion of the base of the hæmorrhoid, bleeding used from time to time to occur from perforation of a vessel—usually a vein—by the needle. When this takes place, on the ligatures being tied, the vessel would be more or less torn open, and bleeding would occur at the time, or shortly afterwards.

Evils of
transfixing
piles

I have more than once been called to see a patient to whom this accident had occurred. It is easily remedied by drawing down the piles by the ligatures, and placing *one* ligature above the spot where the bleeding hæmorrhoid was transfixed.

When hæmorrhage follows on the use of the clamp and cautery or the crusher, it is unwise to search long for the bleeding vessels, for this searching is very likely to disturb other areas or crushed portions, and so cause bleeding from many points. Therefore, in these cases, if simple means fail I at once plug the bowel.

After use
of cautery
or crusher

After Whitehead's operation, primary or recurrent hæmorrhage must take place outside the bowel, as the mucous membrane has been stitched all round to the skin. Thus the hæmorrhage is very easily stopped by pressure. But when secondary hæmorrhage takes place, it can only be due to the fact that the stitches have not held, and so the mucous membrane has slipped back up the bowel. In this state plugging must be resorted to.

Advantages of
Whitehead's
operation
as regards
hæmorrhage

In women hæmorrhage from the rectum may be controlled by passing two fingers into the vagina, and making backward pressure against the sacrum. When the hæmorrhage is from the anterior wall of the bowel, this can be made visible by pressure effected from the vagina towards the anal orifice.

Pressure
from vagina

I will now relate a few cases of hæmorrhage.

I once had a rather startling accident occur after operating. A gentleman came up from the country, and was operated upon by me for piles; it was a bad case, and five ligatures were applied. The night following the operation he was attacked quite suddenly with

Cases

delirium tremens, and in a paroxysm of mania tore off three of the ligatures. The loss of blood was very considerable. When I arrived at the house I found the patient, the bed, and the floor of the room covered with blood. I had much difficulty in replacing ligatures on the bleeding vessels, as the patient, although very collapsed, was capable of offering resistance. Curiously enough, he did exceedingly well afterwards; I do not think that the accident delayed his recovery a single day. He had not been an habitual drunkard, but the fear of the operation induced him, for about a week before he came up to undergo it, to drink quantities of champagne and brandy; this, with the chloroform and the shock of the operation, brought on acute delirium.

Another case of accidental hæmorrhage occurred to a patient of my friend Mr. Blackman, of Highbury. I operated for him upon an elderly gentleman who had a very large hæmorrhoid, which had undergone fibroid degeneration; it was situated dorsally, was as large as a hen's egg, and always came down at stool, giving a great deal of trouble. Ulceration had taken place at the upper part of the pile. I placed a ligature upon it, and then cut the tumour off. At the time of tightening the ligature I felt that the tissues were very friable, and I examined the site of the ligature to see if it had cut through much, but could not discover that it had done so, and there was no bleeding. When I saw the patient in the morning with Mr. Blackman, we found that considerable hæmorrhage had taken place since 4 A.M., the cause being probably as follows: He had not passed any water, and feeling a very urgent desire, he jumped quickly out of bed, and strained violently to empty his bladder; at the time he was doing this he felt something give way in the rectum, and on getting back into bed his wife observed that he was bleeding. With a vulsellum I drew down the bowel, and placed another ligature above the first one. This at once arrested the bleeding, but the next day but one, it recurred to an alarming extent, and I found the parts so soft and sloughy that no ligature would hold; under these circumstances I plugged the rectum. This plug was retained for about ten days, and he had no more hæmorrhage, and eventually did well, although for some time he gave Mr. Blackman and myself no little anxiety.

A gentleman, æt. 23, had all his life suffered from rectal disease: when a child from procidentia, and by the time he was eighteen from bleeding hæmorrhoids. When I saw him he had a prolapse of the lower part of one side of the rectum, which came down on very slight exertion; he was very thin and weak, and subject to fainting. I put two ligatures upon his prolapsus, assisted by my colleague Mr. Goodsall.

This gentleman went on very well indeed until the sixth day, when the ligatures came away on the bowels acting. Soon after this—he had returned to his bed—he said he felt faint, then that he wanted to go to stool; and on being assisted up to do so he nearly filled the pan with dark blood and fainted away. I was sent for in great haste, and

directly saw that he had lost, and was still losing, a large quantity of blood. This was not a case in which one could afford to temporise, so I at once plugged his bowel with cotton-wool and subsulphate of iron, which I had with me. I was quite sure that it was no use to search for the bleeding vessel or vessels. The plugging immediately arrested the hæmorrhage, and I kept the wool in for ten days; I then carefully removed it, and no further bleeding took place. The patient soon got quite well. This is the only case of severe secondary hæmorrhage I ever had in a young person.

An elderly gentleman came from the country to be under my care. He had been much in hot climates, had led rather a dissipated life, and worked very hard. He was only fifty-four, but he looked sixty-five at least. He suffered from a constantly prolapsed hæmorrhoid. I saw no reason why it should not be removed; accordingly I applied a ligature in my usual way. The patient did capitally until the fifth day, when the ligature came away on his going to stool. I saw him in the afternoon and he was very comfortable, and said he should get up and lie on the sofa. I made no objection, and he did so.

At night I was summoned hastily, as he was bleeding. When I arrived I found him quite collapsed, and the blood was literally pouring out from his rectum. The hæmorrhage had come on suddenly when he was moving from his sofa in the sitting-room to the bedroom on the same floor. I plugged instantly and arrested the bleeding; he suffered a good deal of distress from flatulence, and I was compelled to remove the wool and sponge on the sixth day. To my intense annoyance, after twenty-four hours the hæmorrhage recurred quite as badly as at first. I was thus obliged to re-plug the rectum, but this time, not wishing to remove the plug early, I adopted the precaution of introducing a full-sized elastic catheter at the side of the wool, so that he was able to get rid of flatus through it. This was all retained for nineteen days, when I gradually and carefully drew the plugging out: there was no further bleeding. I am free to confess that this was a very anxious case.

A man, æt. 42, was operated upon by me. He was a feeble man and had no power in his sphincter muscles. He suffered from prolapsed hæmorrhoids, which were always down. I used a crushing instrument.

On the first night hæmorrhage commenced; at first the blood was small in quantity, and passed only when he moved or coughed; it came away fluid, and also in small clots: it was venous in character. Ice-water with perchloride of iron was injected, but failed to arrest it. When I saw him he was very pale and faint, and the hæmorrhage was nearly constant, the blood slowly trickling out of the anus. On examination I found the bowel full of blood. I plugged the rectum fully with cotton wool, into which was dusted the subsulphate of iron; this at once stopped the bleeding. The plug was retained for six days, and when it was removed there was no return of hæmorrhage. This

patient was very weak and ill for some time, and he suffered from an attack of purpura. He rallied, however, under good diet and stimulants, and finally quite recovered.

In the year 1866 I operated at St. Mark's with the clamp and cautery upon a really severe case of internal hæmorrhoids. The parts were very vascular, and I had considerable difficulty in controlling the hæmorrhage, having to apply the cautery a good many times. When the patient left the operating table there was no bleeding at all; but in the evening I was sent for by the house-surgeon, as very free arterial hæmorrhage had come on. The patient was very timid and the parts tender, so that I had much trouble to introduce a speculum; and when I did I could not find the spot whence the blood came. I ordered the injection of ice-water and perchloride of iron; this had the effect of arresting the flow, but only temporarily.

When I saw the patient early in the morning I was told that he had lost a good deal of blood during the night, and the flux was still going on, so I determined to find the vessel if it were possible. Accordingly I passed my finger into the bowel, and on that I guided a vulsellum, and, catching a good hold of the rectum, I pulled that part down; while that was held I used another vulsellum on the other side of the bowel, and thus succeeded in bringing the inside of the rectum well into view. This done, I found two points from which the blood escaped in jets, so I placed ligatures upon these vessels, and the hæmorrhage was arrested.

I leave the reader to imagine how much pain the patient must have suffered from this proceeding. He had such a tendency to faint that I was afraid to give him chloroform, and ether was not then in vogue.

But in these days ether should always be given, as it is a direct stimulant to the heart. Moreover, when the patient is under ether, hæmorrhage is easily controlled; whereas an attempt to find vessels when the patient is not under ether, is cruel, only increases the shock, occasions great pain, and does not give the surgeon a fair chance of success.

CHAPTER XIV.

PROCIDENTIA RECTI.

As there is sometimes a confusion of ideas occasioned by the use of the words procidentia and prolapsus, I will point out the distinction between them, for they are very different in appearance, and hence it is most important to retain the two names. For by so doing we thoroughly understand what affection we are speaking about; moreover, the best operative methods for obtaining a radical cure of the two diseases are very different from one another. Prolapse, as I shall describe it, may best be treated by excision, whereas procidentia requires the use of the actual cautery.

Confusion
between
the terms
prolapse
and proci-
dentia

By prolapse I mean a protrusion outside the anus of a *portion or portions* of the mucous membrane, not in its entire circumference, and unaffected by piles.

Prolapse

Internal hæmorrhoids, when they have come down outside the anus, are said to be prolapsed, and the case should be termed prolapsed hæmorrhoids.

To these two conditions only I would restrict the term prolapse; they may and should be cured by removal.

I would confine the term procidentia to a descent of the *whole* circumference of the rectum.

Proci-
dentia

This may take place in three ways:—

First, when the entire circumference of the mucous membrane, or all the coats of the rectum, appear outside the anus.

1st
variety

Second, when the upper part of the rectum descends through the lower part, and then *appears outside* the anus.

2nd
variety

Third, when the upper part of the rectum descends through the lower part, but does *not appear outside* the anus.

3rd
variety

These two latter conditions are kinds of intussusception, but had better be described as forms of procidentia.

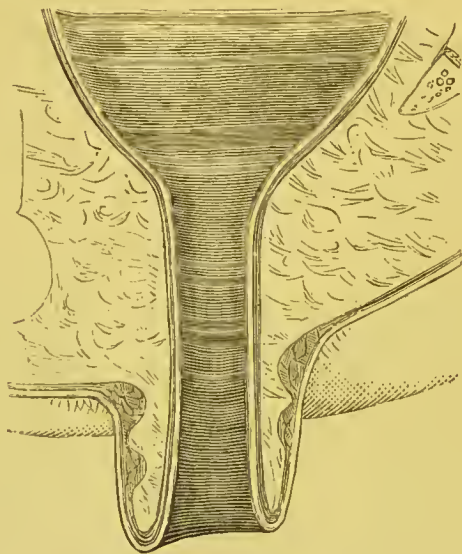


FIG. 37.

Symptoms
in 1st and
2nd kind

Procidentia, when it occurs as is represented in diagrams 37 and 38, presents the following symptoms: When the bowels act the mass protrudes and in old cases frequently

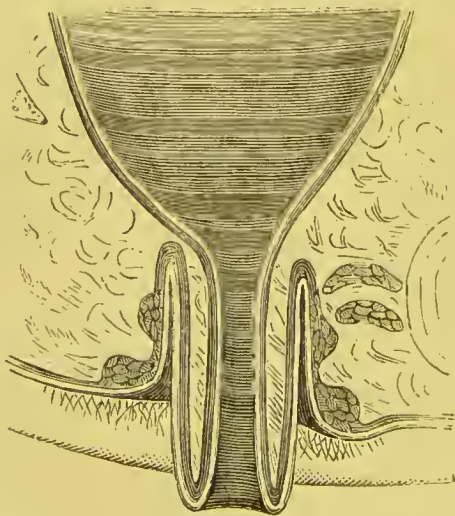


FIG. 38.

bleeds. Constipation is the usual symptom in children, but in the old a nasty, teasing diarrhoea is more commonly

present. There is then often a discharge of mucus. In children the mass generally protrudes only on going to stool, but in adults is constantly down or comes down on the slightest exertion, and therefore may become ulcerated or inflamed.

In very old and bad cases of procidentia more or less incontinence of fæces always exists. As I have before said, there may be two reasons for this symptom. First, loss of tone in the sphincters; the frequent protrusion stretching these muscles so that they lose a great deal of

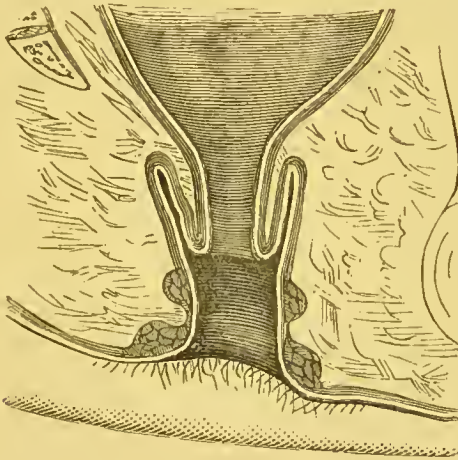


FIG. 39.

their contractile power; and secondly, the mucous membrane gets so altered in structure as to lose, in a great degree, its natural sensitiveness; thus when fæcal matter comes into the lower part of the rectum, the sphincters are not stimulated to action, nor is the patient aware of its presence.

Procidentia varies greatly in size; it is sometimes very large; I have seen it in a woman larger in circumference than the fœtal head, and seven or eight inches in length.

In the third kind of procidentia (diagram 39), the symptoms are as follows: There is no protrusion of the mass from the anus; there is generally obstinate constipation unrelieved by purgatives; a sensation of burning and fulness in the bowel attended with tenesmus, straining, and

Symptoms
in 3rd
kind

difficulty in defæcation with occasional discharges of blood and mucus.

Diagnosis
of 3rd
kind

The diagnosis of the first two kinds is obvious. The third variety (fig. 39) is not always easy to diagnose, as the mass never appears outside the anus. Upon a patient presenting himself with the symptoms above described, this condition of procidentia should be suspected, and sought for in the following manner. Direct the patient to stand up, introduce the finger into the bowel, and then, keeping the finger close to the anterior or posterior wall, pass it up until you meet with an obstruction, *i.e.* it has passed into the cul-de-sac; then slightly withdraw the finger and examine the centre of the gut until you find the orifice, into which the finger or a bougie may be passed for some inches, high up into the rectum. If the intussusception is rather far up the rectum, tell the patient to bear down.

Procidentia
in
children

Procidentia of the rectum is more often seen in children than adults, although it is by no means a rare affection in women—particularly those who have borne many children—and in men in advanced years. Procidentia in children is much favoured by the formation of the pelvis, the sacrum being nearly straight. Moreover, all infants strain violently when their bowels act, even when their motions are quite soft. There appears to be some physiological necessity for this, which I do not pretend to explain or understand; but these facts are not quite sufficient to account for the proneness of children to this malady; there is always, in addition, some inherent weakness or extraneous source of irritation present by which excessive straining is caused. We may mention diarrhœa—often the result of strumous inflammation of the intestines—worms, stone in the bladder, phimosis, polypus recti, &c. There are many cases, however, in which we can assign no special cause, where the child is not manifestly unhealthy, and no source of irritation can be detected.

Suggested
cause of
proci-
dentia

I am sure that the very bad custom of placing a child upon the chamber utensil, and leaving it there for an indefinite period, as practised by many mothers and nurses, is a fertile cause of procidentia.

I think some possible cause of procidentia, both in children and adults, may be found in the length of the mesentery. We know that the second portion of the rectum is normally covered by peritoneum only on its anterior surface, and is fixed to the sacrum at its posterior part. Now should this portion of the bowel during the course of development become completely covered by peritoneum, as it sometimes is, and be connected with the sacrum by a mesentery, here there might be a condition of itself likely to cause a procidentia.

The circumstance that children generally recover from procidentia, but sometimes do not, may be explained by the following line of argument. First, as growth takes place and the sacrum becomes curved, this curve adds a support to the bowel. Secondly, the growing intestines may increase in a greater proportion than the mesentery, and so become fixed to the sacrum, or at least be not so freely movable. In a similar way hernia in children is frequently rectified by advancing development giving increased strength to the weakened parts.

In women who have borne children, procidentia may be occasioned by the loosening of the parts consequent on pregnancy.

In men the pelvic muscles may keep up the rectum during youth, but when age causes a loss of tone in these muscles, procidentia may then arise, and in those who have an abnormally long rectal mesentery, doubtless the above explanation of the etiology of procidentia requires verification. This, I am sorry to say, I have been unable to obtain, on account of the rarity of specimens of this disease, and the little attention this subject has met with.

Sometimes when a large portion of the bowel comes down, there is much difficulty experienced in returning it. I have found, on several occasions, that the passing up the bowel of a large, flexible bougie, so as to carry before it the upper part of the descended gut, is of great service; gentle taxis should at the same time be used, and in this manner the mass can generally be returned. When the gut comes

Returning
procidentia

down, and the patient cannot get it back and does not seek assistance, it gets tightly girt about by the sphincter, great swelling takes place, and sloughing may ensue. I have seen many cases of this kind, but, as far as my experience goes, the sloughing is partial, and only the mucous membrane separates. After a few days' rest, with the buttocks well raised to favour the return of blood, the part can be replaced, and considerable benefit may result. The only case I ever saw where anything like dangerous or deep sloughing took place was in consultation with a medical man who had most assiduously and constantly applied a bladder of ice to the protruded part, and this had so much favoured sphacelus that nearly the whole mass came away, and there was free secondary hæmorrhage. In this case the sloughing was so considerable that a very intractable stricture resulted. This shows the necessity of care in the application of ice; if it be too long continued, or if the patient be old or of feeble constitution, dangerous results may ensue.

Hernial sac
in proci-
dentia

I have had, in my own practice, many cases of proci-dentia in which there was a hernial sac in the protrusion, and in all it was situated anteriorly, as from the anatomy of the part, of course, it must be; you could return the intestine out of the sac, and it went back with a gurgling noise.

Directly the bowel is protruded you can tell that there is a hernia also present by the fact that the opening of the gut is turned towards the sacrum; when the hernia is reduced the orifice is immediately restored to its normal position in the axis of the bowel. I have seen several similar cases in the practice of my colleagues at St. Mark's; the condition is therefore not very uncommon, but I have never found it in children.

Palliative
treatment
in children

In children the palliative treatment is generally successful. It should first be addressed to the removal of any source of irritation; this accomplished, a cure is speedily effected. When no source of irritation can be discovered, the general health must be attended to. The child should never be allowed to sit and strain at stool; the motions

should be passed lying upon the side at the edge of the bed, or in a standing position, and one buttock should be drawn to one side, so as to tighten the anal orifice while the fæces are passing. This device I have found to be very useful ; it is recommended in Druitt's 'Surgery,' but upon whose authority I do not know.

When the bowels have acted, the protruded part ought to be well sluiced with cold water, and afterwards a solution of

Alum. sulph.	.	.	.	.	.	.	.	ʒj
Dec. quercûs	.	.	.	.	.	.	.	Oj—M.

to be increased in strength if it can be borne ; or an infusion of matico, krameria, or weak carbolic acid, should be thoroughly applied with a sponge. The bowel must then be returned by gentle pressure, and the child should remain recumbent for some little while, lying upon its face on a couch, before running about. If there be any intestinal irritation, I generally order small doses of

Hyd. c.,cretâ	.	.	.	.	.	.	gr. ij
Pulv. rhei	.	.	.	.	.	.	gr. iij—M.

at bedtime, and steel wine two or three times in the day. When the child is very ill-nourished, cod-liver oil does much good ; the diet should be nourishing and digestible.

If mild measures do not succeed, I find the application of strong nitric acid the best remedy. Chloroform should be given, and the protruded gut well dried. The acid must be applied all over it, care being taken not to touch the verge of the anus or the skin. The part is then to be oiled and returned, and the rectum stuffed thoroughly with wool ; a pad must after this be applied outside the anus, and kept firmly in position by strapping plaster, the buttocks being by the same means brought closely together ; if this precaution be not adopted, when the child recovers from the chloroform, the straining being urgent, the whole plug will be forced out, and the bowel will again protrude. When the pad is properly applied, the straining soon ceases, and the child suffers little or no pain. I always order a mixture of aromatic confection, with a drop or two of tincture

Operative
treatment
in chil-
dren

of opium, so as to confine the bowels for four days. I then remove the strapping, and give a teaspoonful of castor-oil. When the bowels act the plug comes away, and there is no descent of the rectum.

I have had experience of this treatment in a great many cases; I never knew it to fail if properly carried out, and only on two occasions have I had to apply the acid more than once. The result, also, is not a temporary but a permanent benefit.

In adults

Procidentia in the adult is a very much more unmanageable affection, and is supposed in many instances to be quite incurable.

Sometimes a procidentia occurs conjointly with internal hæmorrhoids; in this case, when the procidented gut is gently returned, there still remains outside the anus a ring of hæmorrhoids, or loose and thickened mucous membrane; and I may mention that when the procidentia is small, it will almost certainly be cured by ligature of the piles. This was clearly shown by the late Mr. Hey, of Leeds.

Operative
treatment
in adults

Numerous operative procedures have been recommended for the cure of this malady in its advanced stages, but I cannot say that I am satisfied with any of them, save one to be presently described; all the others I have seen fail.

Nitric acid

The application of fuming nitric acid, or, what I think preferable, the acid nitrate of mercury, often does much good, although, unfortunately, the relief is usually only temporary; I have had patients to whom the acid has been frequently and very thoroughly applied, but without effecting a cure. The use of the acid in such cases is not at all painful if the skin be not touched; it causes only a burning sensation, which soon passes off. As in children, the gut should be oiled before returning it, and the bowels should be confined for a few days.

In old persons, or in those with a broken-down constitution, a very free application of the acid is to be deprecated, as a deep slough may form, some vessel be opened on its separation, and severe hæmorrhage take place. This complication occurred to me in the person of an elderly woman of feeble powers; she lost very much

blood, and the flux was arrested only by plugging the rectum.

A stricture of the rectum may result from the use of the fuming nitric acid ; I have seen this occur on several occasions, and very notably in a girl at St. Mark's Hospital, to whom acid had to be applied three times, and in whom a stricture formed about three and a half inches from the anus ; this gave us much trouble, as, although the bowel did not come down, the symptoms were quite as distressing as those of that affection.

I have used strong carbolic acid in these cases ; it is not likely to produce a slough, and you may apply it frequently—in fact, every day, if you desire to do so ; benefit results, but the effect is not, in my opinion, so permanent as that derived from the acid nitrate of mercury.

Carbolic acid

Injections of various irritants into the cellular tissue in the ischio-rectal fossæ have occasionally been reported to be beneficial. Dr. Ferrand recites a case in which he injected

Injections

Glycerina	} 15 parts
Aqua	.	.	.	.	.	.	.
Alk. hydrated extract of ergot	.	.	.	.	.	.	2 „

into the ischio-rectal fossa beside the procidentia. Four injections were given at intervals of twenty days, with the result of effecting a cure. Injections of carbolic acid or any other astringent may be used with occasional benefit, for they set up a low form of inflammation which binds the tissues together.

I do not recommend these injections, as they are not at all certain in their action, and may cause abscesses around the anus without curing the procidentia.

In the conditions of procidentia represented in diagrams 37 and 38, when the cases are slight, good may be effected, but unfortunately of a temporary nature, by dissecting off triangular or elliptical portions of the mucous membrane, and bringing the edges together with sutures of horsehair or carbolised catgut. Care must be taken in performing this operation not to remove more than mucous membrane, for if you carry your knife into the submucous tissue, you will get very profuse hæmorrhage. If you like you can

Removal of elliptical portion

clamp portions of the gut, cut them away and use the actual cautery, or you may apply a ligature. I have tried all these methods, but I can only say that I have achieved very partial success; the patient may leave the hospital very well, and you may congratulate yourself upon having effected a cure, but in a few months the bowel will again protrude, in all probability as badly as ever.

Elastic
ligature

Dr. Kleberg relates, in the '*Arch. für klin. Chirurg.*' vol. xxiv., that in very bad cases of procidentia he has used the elastic ligature for removing the mass. He says: 'I carefully examined about the rectum at the junction of the skin and mucous membrane, in order to discover the sphincter ani—a procedure that was more difficult than one would think, because it had become so stretched and atrophied that I could only make it out by feeling under the fingers the coarser fibres running across the longitudinal axis of the bowel. Nothing like the normal muscle was to be discovered.

'An assistant, at this point, surrounded with all the fingers the prolapsus from above, the points of the fingers being directed towards the free end of the prolapsus, and pressed as hard as possible into the gut at a point perhaps half an inch below the supposed sphincter. Immediately in front of the ends of the assistant's fingers I then placed a good, fresh, unfenestrated drainage-tube of rubber, one and one-half lines in diameter, around the prolapsus, and drew it only as tight as seemed necessary to stop the circulation. The elastic ligature was brought to the necessary tension by means of an easily untied slip-knot of silk thrown under it.

'The assistant now had both hands free; and from this time on, the operation was performed under the carbolic spray. A few lines beneath the ligature I now made a longitudinal incision two inches long through the prolapsed gut, and in this way opened the sac formed by the drawing down of the peritoneum. Then I seized the elastic ligature with the forceps and fixed it firmly. It was thus an easy matter to push back into the peritoneal cavity a protruding loop of intestine without the slightest bleeding taking place

into the wound or any air entering the peritoneal cavity ; because the elastic pressure follows so rapidly all the movements that no opening can exist anywhere.

‘ After I had convinced myself that the peritoneal sac was empty, and that no invagination of the intestine was present, but, on the other hand, only that part of the gut which was to be removed lay in front of the ligature, I thrust the largest size Luer’s pocket trocar through the prolapsus, immediately below the elastic ligature, from before backwards, and passed through the canula two elastic drainage-tubes of one and one-half lines in diameter, and, after removing the canula, tied them as tightly as possible, one on the right side, the other on the left. These knots were secured against slipping by means of the knot of silk. The first provision against hæmorrhage—the elastic ligature applied after Esmarch’s plan—was then removed, and the prolapsus cut off with the scissors one inch in front of the permanent ligatures. After a few minutes’ time, during which I kneaded the parts which still remained and lay above the ligatures thoroughly, and as far as possible removed the fluids from them, I covered the parts around the stump with cotton, and soaked that part of the prolapse which still remained above the ligature with a solution of chloride of zinc, dried it, squeezed the soft parts once more, thoroughly applied the chloride of zinc again, and then covered the whole with dry cotton-padding, giving the patient instructions to remove this as soon as it became moist and to replace it with dry, and to give the air all possible access to the parts.’

Dr. Kleberg goes on to say that the ligatures separated one on the fifth, the other on the seventh day, and that in a short time the patient was perfectly cured.

Large procidentia have also been removed by the *Ecraseur* *écraseur*. These methods should only be employed as a last resort after several applications of the actual cautery, as I shall presently describe, have failed to meet with success. But even when such is the case, I should prefer to boldly cut off the mass, securing the vessels as I divided them, and then stitching the bowel to the anal margin.

Cauterisation

I intend now to describe in detail the operation with the hot iron or Paquelin cautery, as first recommended by Dr. Van Buren, of New York. I will fully discuss the manner in which I operate upon the various forms of procidentia.

When operating upon cases as represented in diagrams 37 and 38, the patient is put under the influence of ether, and if the part be not quite down it can be readily drawn fully out of the anus by the vulsellum. I then, having the intestine held firmly out, with the iron cautery at a dull red heat, make four or more longitudinal stripes from the base to the apex of the protruded intestine. I take care not to make cauterisation so deep towards the apex as at the base, because near the apex the peritoneum may be close beneath the intestine, while a deep burn near the base is not dangerous. I take care to avoid the large veins which can be seen on the surface of the bowel. If the procidentia be very large I make even six stripes. I then oil and return the intestine within the anus; having done this I partially divide the sphincters on both sides of the anus with a sawing motion of the hot iron, and then insert a small portion of oiled wool. From the day of operation I never let the patient get out of bed for anything; the motions are all passed lying down, consequently the part never comes outside. If the wounds have not all thoroughly healed in a month, I continue the recumbent position for two weeks more, by which time it very rarely happens that all is not healed. The patient can then arise and get about, but still for some time I enjoin that evacuation of the motions should be accomplished lying down. The reason for the success of the treatment is simple enough. When the burns are all healed, the bowel, by contraction of the longitudinal stripes, is drawn upwards, and circumferential diminution also takes place. In these cases before operation the sphincter muscles have quite lost power, the anus is large and patulous; by sawing through the anus with the iron the muscles contract and regain their power, the patient having strength to cause the anus to close at will and even to some extent to squeeze the finger when introduced. Should one operation not succeed, a repetition of

the burning must be tried. With this method of treatment I have had great success, many persons being quite cured, while others have been greatly benefited so as to be able to work, by only wearing a pad of cotton wadding.

In the condition represented in fig. 39, that is to say, when the procidentia does not appear outside the anus, benefit may sometimes be derived by applying the cautery in the following manner :—

Cauterisation in 3rd variety

Place the patient in the lithotomy position, dilate the sphincters, keeping them dilated with retractors, and introduce a Sims' speculum. Then catch hold of the procident part with a vulsellum and pull it down as near to the anus as possible, being careful to insert the speculum between the mass and the lower rectal wall. Now with the actual cautery burn the mass in three or four places, adjusting your speculum with each burn, so as to prevent injury to the lower part of the bowel. Should the part of the rectum below the procident mass appear to be lax and capacious, burn it too in three or four places. This method is only practicable when the mass approaches to within two inches of the anus. If, on the other hand, a procidentia is situated high up in the bowel, I would suggest the trial of the following treatment. These patients suffer such misery from the constipation and the other symptoms of this condition previously enumerated, that I am sure many of them would be only too glad for some attempt to be made to remedy the affliction.

I have already stated my reasons for thinking that procidentia arises from the presence of an abnormally lengthened rectal mesentery. As it is sometimes impossible to cure this third condition by the application of the cautery, it has occurred to me to make a small incision through the anterior abdominal wall on the left side just above the outer third of Poupart's ligament. I would then introduce the fingers into the abdomen, catch hold of the rectum and pull it up. When it has been pulled up as high as possible—in fact sufficiently to straighten the rectal tube, and so remedy the procidentia—I should then pass a silk thread through the mesentery, and fasten the latter to the abdominal wall. I would next close the wound after

Allingham jun. as to treatment of 3rd kind

the method pursued in abdominal section. By such a procedure I should hope that a firm adhesion would be formed, and that thus the upper part of the rectum would be prevented from becoming intussuscepted into its lower portion. I must admit that this is purely a suggestion of mine, and that I have not lately seen a case in which the procidentia was sufficiently high up to necessitate such a trial. Nevertheless, at the first opportunity I meet with, I shall put this plan into practice.

Since Dr. Vañ Buren's plan of treatment with the actual cautery came into vogue I have operated by his method in twenty-six cases, with most satisfactory results. But I have also seen several patients in which the procidentia was situated high up in the bowel, and was only able to alleviate their sufferings, by directing them to pass a bougie preparatory to their bowels acting, which should be performed in the recumbent position. The next case of this kind I see, I shall certainly operate upon by the above suggested method.

I am not aware of any internal remedy which is of much use in cases of procidentia; but in patients broken down in health, or old people, small and frequent doses of opium with confection of black pepper may be of benefit.

Powdered acorns I have used frequently with advantage for the diarrhœa. The acorns should be baked and grated to powder, and the dose is one teaspoonful in half a tumbler of milk every morning. I have found this answer better than either gallic or tannic acid.

The frequent and bountiful application of cold water in these cases is to be most strongly recommended. Ordinary astringent lotions are not more useful than plain water.

Relief of
3rd kind by
bougie

CHAPTER XV.

POLYPUS RECTI AND POLYPOID GROWTHS.

POLYPUS was formerly looked upon as a very rare disease; recently, however, it has been considered rather more common, and it is supposed that, in times gone by, rectal maladies not being so well understood, many cases of polypus escaped diagnosis. I still, however, maintain that polypus is a somewhat rare disease, accompanied with other rectal ailments. For my statistics at St. Mark's Hospital show that in 4,000 cases of rectal disease there were only sixteen of polypus *without fissure*. Comparative rarity of polypus

It has generally been believed that polypi are much more frequently found in children than in adults; this has not been so in my experience, as out of 84 cases operated upon, 48 existed in children under fourteen years of age, and 36 in older persons. This may be explained by the fact that children not infrequently shed their polypi.

By the word 'polypus' I must be understood to mean a *pedunculated* growth attached to the mucous membrane of the rectum, and generally situated not less than an inch from the anus. I have seen them quite two inches up the bowel, but only occasionally more than that distance. In the majority of cases the polypus grows from the dorsal portion of the rectum, but I have found it on the perineal and lateral segments, or, when they are multiple, all around the bowel.

My friend Dr. Daniel Mollière, of Lyons (whose work on rectal surgery surpasses all others in its pathology), says: 'There is no word in surgery that has been more abused in its use than the word polypus, especially when applied to

tumours of the rectum. As a matter of fact, the term "polypus of the rectum" is used to describe any neoplasm, no matter whether benign or malignant, hard or soft, provided only that it adheres to the rectum by a stalk or relatively limited base.'

Varieties of
polypi

A most valuable and original account of polypi in children by the late Dr. Bathurst Woodman, and founded on his experience at the North-Eastern Hospital for Children, may be found in the 'Medical Press and Circular,' May 5, 1875. He names five kinds of polypi—1, the soft or gelatinous; 2, the cystic; 3, the papillomatous; 4, the dermoid; 5, the sarcomatous. To these I would add the fibrous, and would also state that all of these may be found in adults. From my own experience I should say that in the great majority of cases I have found either the soft gelatinous or the fibrous polypus. I shall, therefore, chiefly confine myself to a description of these two kinds. Polypi may be single, or two or three may exist at the same time in the rectum; and I have on several occasions removed between twelve and sixteen from the same patient. Yet I have never met with such a large number of disseminated polypi as have been observed by Fochin, Richet, Van Buren, and Cripps. Specimens of disseminated polypi may be seen in the museums of Middlesex, Guy's, and King's College Hospitals.

The soft or
gelatinous
polypus

The soft or gelatinous polypi are small vascular tumours with a peduncle often two inches long. They are about the size of a raspberry, and resemble a small half-ripe mulberry more than anything else; they bleed very freely at times, and occasion in the young great debility. They are said to be hypertrophies of the glands of Lieberkühn, or of the mucous follicles of the rectum.

Fibrous
polypus

Fibrous polypi take their origin from the submucous connective tissue of the bowel, and may vary with regard to their hardness, some approaching in appearance to the soft gelatinous polypus, while others are extremely hard. All of these, very hard ones, that I have seen myself, have been nearly as large as an English walnut; they creak when cut, and the incised surface is of

a pale colour. The peduncle is about an inch and a half long, and is always attached above the sphincters. These polypi have been observed and minutely described by both French and German pathologists, and may be considered quite exceptional specimens of this form of tumour.

Polypi may have two stems with one head only. The pedicle may be an inch or a little more in length, and is not uncommonly hollow. Usually in adults the polypi are neither very hard nor soft, and are easily compressible; they are sometimes cystic; a large vessel runs up the stem; in some cases you can feel it pulsate. The soft follicular polypus of children is rarely met with in adults; when it is found it is generally in women, the stem being remarkably long and rather slender.

The usual symptoms in children are: frequent desire to go to stool, accompanied by tenesmus, occasional bleeding with discharge of mucus, and a fleshy mass protruding from or appearing at the anus when the bowels are acting. Symptoms
in children

When the peduncle is more than an inch in length they usually protrude at stool, and require to be returned after the bowels are relieved. They are sure to be described by the child's mother as piles, or as 'the body coming down.'

They may be dangerous when high up, by occasioning intussusception of the bowel, with total obstruction and death.

The peduncle is sometimes so slender that it breaks on very slight traction, and I dare say many polypi become detached when the child is straining or passing a hard motion, and are thus spontaneously cured.

In the adult the history, carefully inquired into, may be found peculiar. The patient will tell you that, without any previous marked discomfort in the rectum, he all at once discovered that a substance protruded on going to the closet. This is characteristic of the malady; until the peduncle becomes long enough to allow of the polypus being extruded, or grasped by the external sphincter, but little or no inconvenience is felt; therefore the onset of the disease is considered by the patient as sudden. This is quite different from the history of hæmorrhoids. Symptoms
in adult

When the polypi are of the hard fibrous variety, and

come down near to the anus, the fæces as they are passed may be grooved. These tumours do not usually appear outside the anus, they do not bleed, but when they do protrude they cause pain, irritation and spasm, and often set up an ulcer in the bowel. The discharge from them is of a very ichorous and ill-smelling character. I have not observed that constipation, that potent factor of bowel affections, obtains in this malady.

Diagnosis

The diagnosis of polypus has been stated to be difficult. I cannot myself see why any difficulty should arise. The history of the case and the symptoms will usually lead you to suspect what the disease is.

When you examine a patient digitally, Mollière advises you to pass the finger first up to its fullest extent, and then gradually to withdraw it, sweeping it round the entire rectal surface. By so doing the finger will hook the pedicle and you will thus discover the polypus. On the other hand, were you to examine from below upwards, the tumour might be pushed up out of reach.

It is possible to mistake this disease for internal piles, procidentia recti, or dysentery. An examination after an injection will clear up the doubt in the first two cases; in the last, the presence of fever, the abdominal pain, and the appearance of the motions are sufficiently distinctive indications.

Treatment

The only treatment to be recommended is the removal of the growth. I do not think it safe either to cut or tear polypi off, as troublesome arterial hæmorrhage may ensue. I have seen them bleed very freely indeed, and, as they are attached at some distance from the anus, it would be by no means easy to place a ligature upon the bleeding vessel.

I have used the clamp and actual cautery twice, and it answered very well, but it is rather a formidable proceeding, the idea of hot irons frightening the patient, although really the application is painless, as also is the ligature; the latter has the advantage of being always at hand. The simplest method, however, is to seize the peduncle close to its base with torsion-forceps and gently twist the polypus

until it comes away. There is no danger of hæmorrhage, no pain, and scarcely any necessity for resting more than one day.

If the polypus is of large size, it is expedient to use a ligature. The polypus should be seized and drawn down; then pass a threaded needle through a small piece of the mucous membrane only, at the basis of the pedicle. Now tie a single knot, after this, surround the pedicle with the ligature and tie up tightly; then cut the polypus off. By securing the pedicle in the above manner, there is no danger of the ligature slipping off when the bowels act. I think it is very desirable that the patient should rest until the ligature separates, and I usually order a mild astringent draught to keep the bowels confined for three days, then I administer an aperient, and on relief taking place the ligature comes away. In two cases I have seen abscesses follow where much exercise has been taken.

Should more than one polypus be felt on examination, it is well to dilate the sphincters so as to obtain a good view of the interior of the bowel. If this be not done, other polypi may escape notice.

Occasionally it happens that polypi recur after removal. I am inclined to think that most of these are not cases of recurrence, but are polypi which existed at the time of the first operation, but were not discovered.

From the polypus of the adult I have often seen abscess, ulcer or fissure, and fistula arise. A short time since a patient was sent to me with a fistula complete and dorsal; the probe passed readily through it into the bowel. On introducing my finger I found the internal opening very large, a hard polypus as big as a marble projected into it; the stem was quite half an inch long, and was attached near the promontory of the sacrum. I have seen on post-mortem examinations in both adults and children, full-sized polypi attached as high as the sigmoid flexure of the colon, and also in the colon itself; they cause diarrhoea and may bring on obstruction of the bowel by setting up inflammation, which occasions paralysis of the muscular coat of the intestine. When fissure exists with polypus,

Complications of polypus

the removal of the polypus and gentle dilatation will cure both maladies.

I will now relate a few cases of polypus.

Thos. B——, æt. 4, was brought to see me. For more than twelve months he had what was supposed to be procidentia of the bowel; he lost a good deal of blood at times, and was very feeble and anæmic. After an injection there came down to the anus a spongy, irregular-shaped, bleeding mass, fully as large as a medium-sized walnut; it felt soft but not gelatinous. A tolerably long pedicle connected it with the anterior wall of the rectum. I applied a ligature and cut the polypus off. He was ordered an astringent draught to confine the bowels for a few days. Four days afterwards he took a dose of castor oil, and the ligature came away on the bowels acting. There was no bleeding.

Jane H——, æt. 7, brought to St. Mark's Hospital. Her mother said that something came down when the bowels acted, and she lost much blood; she was obliged to put the substance back again. After an injection *two* tumours made their appearance, and I at first thought it was a case of hæmorrhoids; but on closer examination, passing my finger into the rectum, I found that they were polypi, arising by two peduncles from quite an inch and a half up the bowel. One appeared to be attached dorsally, and the other laterally. I applied two ligatures and snipped off the growths. In three days the ligatures came away, and she was soon quite well.

Henry de C——. He was six years old, and looked a very feeble, delicate boy. For two or three years he had lost blood at stool, and latterly something had protruded after an evacuation; it had to be returned by pressure. He had taken a quantity of medicine, and been treated at several public institutions. After an injection a dark-coloured, very vascular polypus came into view; it had a well-defined, rather thick neck. I applied a ligature and cut through the pedicle; the tumour was about the size of a raspberry. The thread separated in five days, and there was no hæmorrhage. I kept him under observation some time, giving him tonics; he was ultimately discharged perfectly recovered.

Hugh L——, æt. 9, a weak and irritable boy, emaciated and bloodless, suffered from cough. His mother said he had been troubled for five years at least with his bowel coming down whenever he went to the closet. He returned it himself by pressure. He had been taken to medical men, and also to hospitals, and she had been told that it was a weakness of the bowel, and had used ointments and lotions for it. The loss of blood he had sustained lately had been very severe. He did not suffer any pain. When I first saw him his mother said 'his body' would come down if he stooped and strained a little, and

on his doing so a round, vascular, bright-red, villous body, bleeding freely, was seen outside the anus. It was not at all painful to the touch. I found that it was connected with the bowel just above the internal sphincter by a pedicle of pale colour, at least two inches long. I applied a silk ligature and ordered him a little aromatic confection to confine his bowels. In three days the ligature separated on action taking place. I then prescribed for him some iron and cod-liver oil. In a fortnight they brought him again, saying that another substance had made its appearance, and, sure enough, on his straining, a tumour, almost precisely similar to the former one, protruded from the anus. To this also I applied a ligature. When I saw him at the end of a week I administered an injection to see if there were any more polypi, but I found none, so discharged him as cured.

Duncan J——, æt. 18, came to St. Mark's. His health was generally good. For twelve months he had had something protrude from the anus on visiting the water-closet, and he had lost a quantity of blood. It retracted spontaneously on his rising up after the action. He had been under the care of many physicians and surgeons, and had always been treated for bleeding piles. He had a pain of a dragging, burning character in the rectum, but it was not severe. After an injection a large (the size of a walnut) vascular, velvety-looking polypus appeared at the verge of the anus. The pedicle was rather thin, and not so long as usual. I held it with a vulsellum while a ligature was applied; this was pulled so tight that it cut the peduncle at once. I was apprehensive of bleeding, and so kept him lying down in the out-patients' room for a couple of hours, when, finding there was no hæmorrhage, I sent him home. In a week he came and said he was quite well.

Martha H——, æt. 25, married; no children; several miscarriages; admitted into St. Mark's. She had one perineal hæmorrhoid and a dorsal fibrous polypus, the size of a hazel-nut. The polypus had a shortish broad pedicle; it was situated above the internal sphincter, and I found some difficulty in applying a ligature. She left the hospital well.

Mr. James B——, æt. 37, was sent to me by a medical man who thought he was suffering from piles. After an injection a polypus came down, resembling much that found in children, but it was firmer and not so vascular; it was about the size of a raspberry. I placed a ligature on the stem and cut it off. This gentleman did not rest, as I advised him to do, for a few days, and he had an abscess form a week after the separation of the ligature.

A lady, æt. 46, who had been supposed to be suffering from some uterine affection, was sent to me by Dr. Priestley. He had found on examination that the patient's symptoms were due to a polypus of the rectum; this was easily felt from the vagina. I removed the polypus, and the patient soon recovered.

These cases of polypus forcibly illustrate the desirability of always giving an enema before making an examination, as it is only by seeing the patient just after the bowels have acted that you can make certain of your diagnosis.

Polypoid
growths

By polypoid growths are meant small growths protruding from the mucous membrane of the rectum, but not absolutely pedunculated. They rarely protrude outside the anus. These growths are of great importance, as they occasion or keep active several diseases of the rectum, as pruritus ani and fissure. It is only by the removal of these polypoid growths that the above-mentioned ailments can be combated. I have noticed two varieties, both of which must be carefully distinguished from warts, which chiefly affect the outside of the anus, and are presently to be described. The one kind of polypoid growth consists of little tags of mucous membrane, never more than one inch long, soft, freely movable, and generally situated upon a small pile, or at the upper part of a fissure. The second variety is hard and nipple-like, the base being broad at its attachment to the mucous membrane, and the apex pointed and hard. On section these growths appear to be dense fibrous tissue.

Varieties

Symptoms

It is rarely that patients come for consultation about the growths themselves; they only complain of the symptoms occasioned by them, viz. discharge of the mucus or rather a watery, moist condition of the anus which causes fissure or pruritus ani.

Examina-
tion

When these symptoms exist a careful examination should be made with the finger, when the growths may be felt as tag-like projections from the mucous membrane. If they are of the soft variety and difficult of detection, they may be seen by means of a speculum.

Treatment

The patient should have them removed, and this may be done by snipping them off with scissors. They rarely bleed much.

Warts

Warts around the anus may be as warts in other parts of the body, sessile or pedunculated, the peduncle being single or multiple, the surface smooth or branched.

They may arise like other warts from a natural predis-

position in the patient, or they may follow on gonorrhœa, leucorrhœa, discharges during pregnancy, or in fact on any watery mucous discharge. They are quite distinct from condylomata of syphilis. They rarely extend into the rectum, being chiefly confined to the parts around the verge of the anus.

Several methods of treatment have been tried: the antisyphilitic treatment, which is useless, as they are not syphilitic; the application of powders to dry them up, or the cutting them off, which is ineffective, as it does not destroy the base, and they may therefore recur. The best treatment is to apply fuming nitric acid to each wart, and at the same time to scrape them off with the end of a wooden match. When this has been done, the acid should be applied to their bases. This causes little pain, and is a most certain and speedy cure.

CHAPTER XVI.

PRURITUS ANI.

Pruritus

PRURITUS ANI, or, as it may be well called, painful itching of the anus, is a most distressing malady. I have often heard a patient say that his or her life was rendered almost unendurable by it. In fact, one very nervous invalid told me that unless he had obtained relief he believed that he should have gone out of his mind. It is very intractable, but I am confident that it is always curable if the patient will strictly, patiently, and persistently follow the advice of his medical attendant. I can truly state that I have rarely, if ever, failed to cure a patient who adhered rigidly to my directions; and when a person, the subject of bad pruritus, comes to me, I always say—‘Unless you intend to conform most religiously to my directions as long as I think necessary, I cannot cure you, and I had much rather that you consulted some other surgeon.’

General
causes

Pruritus is not, by any means, so common in women as in men, nor is it frequently met with in young persons. It may be caused by various general and constitutional disorders and derangements, hereditary predisposition, as in strumous individuals in whom the skin is very delicate and easily irritated, or in debilitated conditions of health. Gout, whether latent or active, is a very frequent cause of pruritus.

The disorder is frequently induced, or at all events kept up, by habits of too free eating and drinking, and its successful treatment therefore calls for a considerable amount of self-denial on the part of the patient; and thus it often happens that as soon as the sufferer gets relieved, he forgets all his prudent resolutions, and relapses into his old way of

life—a step which is pretty certain to result in the return of his enemy in full force. He then usually blames his doctor, very rarely himself, and either gives up in despair all hope of cure, or seeks new advice, so that the affection comes to be considered as not only an exceedingly troublesome one, but almost incurable. Although, as I have said, free living often induces pruritus, I have met with many cases in very abstemious persons; I have seen a most ascetic clergyman suffer dreadfully, and I have had under my care a lady who nearly all her life has been a total abstainer from alcohol, and is a remarkably small eater, yet she has been quite a martyr to this complaint. Particular articles of diet or drink affect some persons in a remarkable manner. I once had a patient who invariably got an attack of pruritus from eating lobster or crab, and of these shellfish he was inordinately fond, but rarely dared to indulge his taste. I have seen a similar result from eating salmon. Another of my patients was sure to suffer if he drank any quantity of champagne or ale, and the irritation once started was very difficult to arrest. Spirits and coffee are also likely to induce this disease. There is but little doubt that excesses at table, combined with a want of active exercise, are not only a predisposing but also exciting causes. Excessive smoking is another excitant of the disorder; I have seen several instances (where patients had a tendency to the malady) of over-indulgence in smoking being followed immediately by an attack of pruritus. In women it may result from uterine disorders.

Doubtless there are many cases of pruritus for which we are unable to assign an ordinary cause, and it may then be considered as a pure neurosis, being occasioned or greatly aggravated by mental worry or overwork.

There are numerous local conditions that may give rise to pruritus ani. Among these is constipation, which causes pressure on the hæmorrhoidal veins; this stagnation of blood may lead to a low inflammation of the skin around the anus, resulting in eczema, a very potent cause of pruritus. As a parallel to this may be cited—eczema of the

Local
causes

legs caused by varicose veins. Piles, polypus, and polypoid growths, fistula or fissure, may, from the irritation they set up and the abnormal secretion they occasion, have as their sequela pruritus ani; chronic diarrhœa, or in women all vaginal discharges, may also be a cause. Thread-worms, pediculi, and other parasites often produce much itching. Erythema, herpes, any variety of eczema, whether acute or chronic, or a condition described by Von Hebra as *eczema marginatum*, caused by a vegetable parasite (*trichophyton*)—from these alone, or together with the above-mentioned affections, pruritus may arise.

Symptoms

The irritation in the majority of cases is worse at night, especially when the patient gets warm in bed, so that often the greater part of the night is rendered sleepless and inexpressibly wretched; towards the morning, irritable and worn out, he falls off into a fitful slumber, from which he often awakens himself by scratching; this of course makes the part more or less raw, and materially adds to his discomfort in the daytime. I need scarcely say that the more the sufferer scratches the worse he makes himself, although it is very difficult indeed to avoid seeking the temporary relief it affords. Many persons have told me they would infinitely prefer decided pain to the dreadful and constant itching they have to endure, which really, after a time, becomes pain of a most sickening character. Excitable people are often greatly troubled in the day as well as at night, the itching setting in badly after exercise or on leaving the cold air and coming into a warm room.

It is generally stated that there is very little alteration in the aspect of the part affected, and that nothing is to be observed beyond a roughened, thickened, and more rugose state of the skin just around the anus. This I think is by no means usually the case; sometimes there is a distinctly eczematous, erythematous, or herpetic rash, the part being always moist from exudation; at others there is a dry, rugose condition, with bright redness consequent upon scratching; occasionally there are a quantity of minute scales to be seen, forming irregular rings; often cracks are seen radiating from the anus, and even extending up to the

sacrum; but what I consider the characteristic condition—which may always be noticed when the disease is severe, and has lasted for any length of time—is the loss of the natural pigment of the part. To such an extent does this often obtain, that patches around the anus, extending backwards as far as the sacrum and forwards to the scrotum, are of a dull dead white, the skin looking more like very white parchment than natural integument, and if you will pinch it up you will feel that it has lost its normal elasticity. I have seen a similar condition induced by genital pruritus in women.

When considering a case as to the question of treatment, it is always important to discover the cause of the irritation. I am fully convinced that the more you treat pruritus ani as a general disease the more successful you will be; the difficulty in curing it has arisen in great measure from its having been considered as merely a local affection, and only local means having been applied for its relief.

When there is no ascertainable local cause, and the patient is of a strumous nature, or in a debilitated state of health, much benefit may be derived from *liq. potassæ arsenicalis* in full doses, cod-liver oil, or iron and quinine.

General
treatment

When gout, active or latent, is the cause of pruritus, diet is a most important element in the treatment. I think the irritation is best allayed by a strong solution of bicarbonate or bisulphite of soda frequently applied in a poultice. I have formed a good opinion of the usefulness of lithia water and the effervescing citrate of lithia. In some cases, where the irritation is very severe, colchicum with alkalies answers best, but, if it can be managed, a course of waters at Baden-Baden, Ems, or Carlsbad will be found most beneficial.

If pruritus be caused by excesses in eating or drinking, or should the patients be stout and plethoric, a rather low diet should be enjoined, they should avoid all rich and highly seasoned dishes, eat but little meat, and take fish, poultry, vegetables, and ripe fruits. Interdict both beer and spirits, and restrict the drinking to a little light sherry

or claret and Vichy or Seltzer water. Coffee should be given up, weak tea or cocoa being taken at breakfast. Enjoin a walk of three or four miles daily, and, if possible, at such a speed as to induce slight perspiration; let the patient take a sponge bath every morning, a warm or Turkish bath once in the week, and every night when retiring to bed wash the anus and parts around with warm water and tar or Castile soap. If the bowels are at all confined, one of the following purgatives may be beneficial:—

R Mag. sulph.	.	.	.	.	.	.	ʒj
Mag. carb.	.	.	.	.	.	.	gr. x
Vin. colchici	.	.	.	.	.	.	℥v
Syrup. sennæ	.	.	.	.	.	.	ʒj
Tinct. card. co.	.	.	.	.	.	.	ʒss
Aquam	.	.	.	.	.	.	ad ʒj—M.

t. d. s.

R Pil. hyd. subchlor. co.	.	.	.	.	.	.	gr. ij
Pil. rhei co.	.	.	.	.	.	.	gr. iij—M.

Every other night for a week.

Mag. sulphite in gr. v., gr. x., or gr. xx.

Once or twice a day in water.

Borotartrate of potash	ʒj
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In scales.

(Martindales)	(in water.)
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t. d. s.

Mag. sulph.	ʒj
Pot. nitratis	gr. xv
Syrup. sennæ	ʒij

In water every morning.

R Tinct. nuc. vom.	℥vij
Liq. ext. cascara sagrada	.	.	.	.	.	.	℥x
Sodæ bicarb.	.	.	.	.	.	.	gr. x
Ammon. carb.	.	.	.	.	.	.	gr. iij
Glycerine	.	.	.	.	.	.	ʒj
Tinct. card. co.	.	.	.	.	.	.	ʒss
Aquam	.	.	.	.	.	.	ad ʒj—M.

t. d. s.

The mineral waters of Carlsbad, Friedrichshall, Vichy, Hunyadi Janos, Pullna, &c., are also good remedies, and I frequently employ them. In women the uterine functions

should be attended to; and I have frequently found the citrate of iron, quinine, and strychnine very advantageous.

When you have made up your mind that the essence of the disease is in the nervous system, as I think it often is, particularly in spare and delicate, excitable people, you should give arsenic and quinine freely, and be prepared to push them to their physiological effect. They may be taken separately or combined. I have rarely failed to cure this class of case by perseverance in these remedies; at the same time, of course, using local means to allay irritation.

I once had a very excitable, nervous patient, who frequently got an attack of pruritus when he was mentally overworked or irritated, and in this and similar cases I have found the .

Pot. bromid.	.	.	.	.	.	gr. xx to xxx
Chlor. hydrat.	.	.	.	.	.	gr. x to xv
Aq. chloroform.	.	.	.	.	.	ʒj—M.

very useful. This mixture, taken at bedtime, generally ensures a fair night. An extended experience in this class of cases has induced me to think most highly of the bromide of potassium ammonium or sodium and chloral in combination. In alternation with the chloral I have seen great advantage result from the succus conii in full doses (one to two drachms given three times in the day); to this may be added cod-liver oil after meals, by which means I think you may improve nerve-function and induce a more regular distribution of nerve-force.

In the treatment of pruritus ani it is well to avoid the internal administration of opium in any form; you may procure a night's rest by its use, but you pay dearly for it afterwards in an increase of the disorder.

Having considered the remedies for the constitutional and general causes of pruritus, I now turn to the local treatment, for though constitutional derangements alone may give rise to pruritus, at the same time they may be accompanied by local causes. These local changes in the parts may require treatment to accomplish a cure. For instance, a patient may be afflicted with gout, causing eczema around the anus, and this eczema, when once

Local
treatment

started, may be kept active—although the gout may be cured—by the secretion from piles, polypoid growths, fissures, &c. In speaking of the local treatment it is impossible to state in what conditions each powder, ointment, or lotion may be found beneficial. For, in cases which appear best suited to ointments, the ointments may utterly fail, and a powder, which you feared would be useless, may effect a cure. Therefore I must advise my readers to ring the changes between ointments, lotions, powders, and caustics.

As a general rule, in acute cases, soothing lotions or ointments are advantageous, but in chronic cases more stimulating applications are required.

I will now give a few of the prescriptions I have found most valuable. Previously to the application of any of the following remedies, the parts should be washed with oat-meal and water, and if any soap be used, the best, in my opinion, is Castile.

Ointments

R Hyd. subchlor.	.	.	.	.	.	gr. x
Ung. sambuci	.	.	.	.	.	ʒj—M.
R Chloroform.	.	.	.	.	.	ʒij
Glycerine	.	.	.	.	.	ʒss
Ung. sambuci	.	.	.	.	.	ʒjss—M.
This is a most useful preparation.						
R Sodæ bicarb.	.	.	.	.	.	ʒij
Morph. hydrochlor.	.	.	.	.	.	ʒj
Acid. hydrocyan. dil.	.	.	.	.	.	ʒj
Glycerine	.	.	.	.	.	ʒj
Vaseline	.	.	.	.	.	ʒiij—M.
R Hyd. subchlor.	.	.	.	.	.	ʒij
Bismuth. subnit.	.	.	.	.	.	ʒjss
Tinct. aconit.	.	.	.	.	.	ʒviiij
Glycerine	.	.	.	.	.	ʒij
Ung. sambuci	.	.	.	.	.	ʒj—M.
R Bals. Peru	.	.	.	.	.	ʒj
Acid. boric.	.	.	.	.	.	ʒj
Vaseline	.	.	.	.	.	ʒj—M.
R Cocaine	.	.	.	.	.	gr. xv
Lanoline	.	.	.	.	.	ʒj—M.

R Ung. picis liq.	. . . . .	℥ij
Ung. hyd. ammon. chlor.	. . . . .	℥vj
Ol. amygdal.	. . . . .	℥j
Vaseline	. . . . .	℥j—M.

Very advantageous when there is great thickening of the skin.

Dr. Bulkley recommends the following as useful:—

Ung. picis	. . . . .	℥iij
Ung. belladonnæ	. . . . .	℥ij
Tinct. aconitæ rad.	. . . . .	℥ss
Zinc. oxidi	. . . . .	℥ij
Ung. aquæ ros.	. . . . .	℥iij—M.

Dr. Carson:—

Camph.	. . . . .	℥j
Sp. vin. rect.	. . . . .	q.s.
Vaseline	. . . . .	℥j

p. a. a.

The following are lotions for pruritus:—

Lotions

R Sodæ biboratis	. . . . .	℥ij
Morph. hydrochlor.	. . . . .	gr. xvj
Acid. hydrocyan. dil.	. . . . .	℥ss
Glycerine	. . . . .	℥ij
Aquam	. . . . .	ad ℥vii—M.
R Acid. boric.	. . . . .	gr. x
Vin. colchici	. . . . .	gr. xx
Aquam	. . . . .	ad ℥j—M.

The following prescription of the late Mr. Startin has been of great service to many patients suffering from eczema. I have seen a bad case cured in forty-eight hours by its application alone:—

R Liq. carbonis deterg. (Wright's)	. . . . .	℥j
Glycerine	. . . . .	℥j
Zinci oxidi	. . . . .	℥ss
Pulv. calamin. precip.	. . . . .	℥ss
Pulv. sulph. precip.	. . . . .	℥ss
Aquam	. . . . .	ad ℥vi—M.

The part affected to be painted thickly over once or twice daily and allowed to dry.

R Liq. plumb. subacetatis	. . . . .	℥j
„ „ with milk	. . . . .	℥ss

Lastly, I must not omit to mention carbolic acid, with glycerine or water and peppermint water, as being very useful, and also prophylactic, after other treatment has succeeded.

Powders

Powders consisting of oxide of zinc, pulv. calaminæ, calomel, bismuth, and starch, or iodoform, may sometimes be of service.

In obstinate, old-standing cases I usually commence the treatment by rubbing the parts thoroughly with a solution of nitrate of silver, ℥ij to the ounce; this softens the skin and induces a more healthy action and secretion. At times I have found Condyloma's fluid, undiluted, useful for the same purpose: it should be applied twice or oftener in the week.

When pruritus is caused by thread-worms, they should be got rid of by the means mentioned when speaking of them in the chapter on fistula, page 27.

When it is caused by any other animal or vegetable parasite, it is readily cured by the application of sulphur ointment; or—what is much cleaner and equally efficacious—a lotion of sulphurous acid of the strength of one part to six of water.

If these do not succeed, the application of Ung. hyd. ammoniatum, or a lotion made of

Hyd. perchlor.	.	.	.	.	.	.	gr. iv
Aquæ calcis	.	.	.	.	.	.	ʒiij—M.

may be tried.

Plug

When the irritation of pruritus is so great that the patient is quite worn out for want of rest, I have for years past recommended the introduction into the anus at bedtime of a bone plug, shaped like the nipple of an infant's feeding-bottle, with a circular shield to prevent it from slipping into the bowel; the nipple should be about an inch and a-half in length, and as thick as the end of the forefinger. This is most efficient in preventing the nocturnal itching; a good night's rest is almost sure to result from its use, but I advise it to be worn only every other night. I presume that it benefits by exercising pressure

upon the venous plexus and filaments of nerves close to the anus. The idea of this plug occurred to me from several of my patients telling me that the only way they could obtain relief and sleep, when the itching was very bad, was by introducing the end of the forefinger into the anus, and making pressure; this instantly arrested the irritation.

If when you examine a patient with pruritus you discover piles, polypoid growths, or fissure, it is always wise to tell him that it may not be possible to effect a cure of the pruritus without removing the probable cause or aggravating agent of the disease. Of course, any palliative treatment advocated above may be tried; but should this fail, I am perfectly convinced that many cases of supposed incurable pruritus may be cured by resorting to operative measures.

Complica-
tions

I have over and over again effected a cure of most troublesome cases by removing piles or polypoid growths. Even in some cases where there is no discoverable cause for the pruritus, great benefit may be derived from forcibly dilating the sphincter.

CHAPTER XVII.

FISSURE AND PAINFUL, IRRITABLE ULCER OF THE RECTUM.

Fissure

THIS is an excessively painful and by no means uncommon affection; it is more frequently found in women than in men, although not rare in the latter. I have seen fissure in a baby in arms, and in an old woman of eighty.

Fissure, although really so simple a matter, and its cure generally so easy, wears out the patient's health and strength in a remarkable manner; the constant pain and irritation to the nervous system are more than most persons can bear; I have frequently seen women suffering from small anal ulcer, who thought they must have cancer in consequence of their extreme illness and pain. What under these circumstances is very extraordinary is the length of time people go on enduring the malady without having anything done for it. It is not an uncommon thing for one to see fissures of many years' duration, especially in young women, who, through delicacy of feeling, often conceal rectal affections.

It is common for fissures to heal for a time and then break out again, so patients are apt to think a perfect cure will presently result, and defer proper treatment.

Causes

Fissure or ulcer may be brought about by an injury or tearing of the delicate mucous membrane at the verge of the anus; it may therefore be caused by straining, or by the passage of very dry, hard motions; sometimes it follows severe diarrhœa.

Gelatinous and fibrous polypi are not at all uncommon causes of fissure. The polypus is usually situated at the upper or internal end of the fissure, but it may be on the opposite side of the rectum. The origin of many fissures is syphilis.

It may also result from a congenital narrowness of the anal orifice, and is then generally seen in children; or it may be caused by a hypertrophied condition of the sphincters, which hypertrophy may have arisen from severe constipation or any other rectal affection.

Fissure is frequently the sequel of a confinement and is commonly caused or aggravated by uterine displacement. I have stated that operations upon hæmorrhoids under similar conditions are not satisfactory; the same observation applies with quite as much truth to *fissure* and uterine disease. I have many times had reason to repent interfering with these cases. The successful treatment of the uterine disorder may be sufficient to cure the fissure (if no polypus exist), or at all events the ulcer will afterwards yield to local applications and general treatment. If the fissure should be benefited by operation, as long as the uterine malady exists there will be a constant danger of a relapse taking place. The most common forms of uterine displacement in connection with fissure are, according to my experience, anteversion and retroversion, and associated with these I have frequently observed affections of the bladder, chronic cystitis, and spasmodic pains in micturition. When you find these three disorders united, depend upon it you will have a case that will call for all your skill and patience to bring to a successful issue.

I have headed this chapter 'Fissure and painful irritable ulcer' because the symptoms and treatment do not differ whatever form the ulcer assumes, whether it be elongated and club-shaped, oval, or circular; but, as a rule, the small circular ulcer is situated higher up the bowel than fissures are, which generally extend to the junction of the mucous membrane with the skin; the ulcer being more commonly found above, or about the lower edge of the internal sphincter.

Kinds

These ulcers and fissures vary in depth and size, some looking only as small abrasions of the mucous membrane and extending to no depth, others being as large as a shilling and laying bare the muscular fibres. These fissures may be

simple wounds, or they may be inflamed, callous, indurated at their edges, or even have a sloughy base.

By far the most usual position of fissure is dorsal or nearly dorsal, although it may be anterior or lateral.

Symptoms

As a rule patients suffering from fissure of the rectum imagine that their symptoms are due to hæmorrhoids; they tell you that they have a discharge of blood and matter, a swelling outside the bowel and pain at stool, and they believe they have piles. Unfortunately, not infrequently the medical attendant is satisfied with the patient's diagnosis, and treats the case as one of external hæmorrhoids.

I should say generally that when a patient complains of great pain on defæcation, it is not piles he is suffering from, or certainly not uncomplicated piles.

In fissure the pain on the bowels acting is more or less acute; some describe it as like tearing open a wound, and doubtless it is of a very excruciating character. I have known patients who for hours could not bear to stir from one position, the least movement causing an exacerbation of the pain. This agony induces the sufferer to postpone relieving the bowels as long as possible, the result being that the motion becomes desiccated and hardened, and inflicts more grievous pain when at last it has to be discharged. After action of the bowels, the pain may in a short time entirely cease, and not return at all until another evacuation takes place; but often it continues very severe and of a burning character, or it is of a dull heavy character, and accompanied by throbbing, which lasts for hours, sometimes even all day, so that the patient is obliged to lie down, and is utterly incapable of attending to any business. In some instances the pain does not set in until a quarter or half an hour after the bowels have acted.

The pain may not depend at all upon the size of the ulcer but rather upon its position; for even a small crack, situated at the anal orifice over the external sphincter and involving the skin, may cause much greater pain than a large ulcer situated higher up in the rectum.

Why are ulcers near the anus so very painful, while

those situated higher up the bowel are not generally so? There are two reasons which suggest themselves at once: 1st, the great mobility of the external sphincter; 2nd, the supply of nerves. The lower part of the rectum and the anus are very fully supplied by branches from the sacral plexus, and more especially from the pudic. These nerves send numerous branches between the fibres of the sphincters and immediately beneath the mucous membrane; thus very superficial ulceration exposes a nerve, and the slightest touch, contraction, or stretching of the sphincter causes intense pain.

I think that in the circular ulcer there is less severe pain at the moment of defæcation, but it comes on from five minutes to a quarter or half hour after that act, and then in some cases is quite as intolerable as that resulting from the fissure.

A great many apparently anomalous symptoms are produced by small painful ulcers of the rectum—retention of the urine, pain in the back, pain and numbness down the back of the legs, leading to unfounded fears of paralysis, may be mentioned as not uncommon. When in a fissure the nerves are exposed the pain is most acute at the time of an evacuation; when they are not so exposed the pain generally sets in shortly after the action, in consequence of the irritation to the sphincter. In many of these ulcers an examination with a magnifying glass has shown me the fibres of the external sphincter laid quite bare. Patients sometimes tell you that the first time they suffered pain was after a very hard motion, when they felt something give way with a crack.

With a patient suffering from the above described symptoms, a thorough examination must be made for fissure. The usual position on the side is the best. Let the patient raise the upper buttock with the hand. Then look around the anal margin, at the part where the skin and mucous membrane join, for an external pile or warty growth, as a fissure is frequently situated above them and is sometimes hidden by them. The patient may greatly assist you in your search by placing his finger on the spot

Examina-
tion

outside the bowel where he feels the pain. The painful spot often shows you where a fissure is situated, or even the position of an ulcer higher up in the bowel. Generally, the sphincter will appear hard to the touch and hypertrophied. When the patient is told to bear down you will observe that he has difficulty in doing so, for the act of straining causes pain in the fissure, and the anus will then be thrown into a state of alternate contraction and relaxation.

With the forefinger and thumb gently open the anus as far as possible; you will then be able to see just within the orifice an elongated, club-shaped ulcer; the floor of it may be very red and inflamed, or, if the ulcer is of long standing, of a greyish colour with the edges well-defined and hard.

Frequently at the upper part of the fissure is a small clavate papilla or minute polypoid growth; this must not be confounded with ordinary polypus, and although perhaps not the cause of the fissure, will, unless removed, prevent its getting well because of its daily falling into the fissure and so keeping open the wound.

If a polypoid growth be found at the upper part of a fissure there is no occasion to pass the finger into the bowel, for, having found a cause of the fissure not healing, such an examination is unnecessary, as it gives rise to extreme pain.

Method of
digital ex-
amination

If no polypoid growth can be seen, an examination with the finger is then desirable, in order to discover the cause, and should be conducted in the following manner: If the fissure be situated *dorsally*, the finger should be introduced, pressure being made towards the perineum, for by this the fissure is not so pressed upon as when the finger is inserted in the ordinary manner. In this way a thorough examination can be made without causing the patient severe pain. If the fissure be situated anteriorly or laterally, the finger should be pressed towards the opposite side of the bowel.

No fissure existing at the external sphincter, a search should be made for an ulcer situated higher up in the bowel.

These ulcers are more difficult to find than the fissures, Speculum as they often cannot be seen without the use of a speculum or getting the patients to strain violently, which they can do more easily than in the case of a fissure situated at the verge of the anus. Moreover, the introduction of the finger or of the speculum is not attended with so much pain. An educated finger detects these ulcers directly; they feel much like the internal aperture of a fistula, but the edges are harder, and therefore more defined, and there is no elevation above the surface of the surrounding mucous membrane, as is frequently the case in fistula. These ulcers often burrow, and then they become the internal openings of blind internal fistulæ.

In children and young persons, unless a polypus or polypoid growth, or congenital contraction, complicates the fissure, I think it is almost always curable without operation. I have had many cases resembling the following:—

Palliative
treatment

A child, æt. 4½, admitted into St. Mark's. For twelve months or more he had been subject to procidentia every time his bowels acted; he was usually rather constipated. About five or six months before he began to suffer pain, which lasted for hours after the bowels had been relieved; this was so severe that he screamed and rolled about in his bed; he often passed a little blood; the pain was much aggravated when he was costive. On an injection being given, the rectum came down, and a very distinct fissure was seen. There was no polypus in the bowel. Ung. zinci, with extract of belladonna and opium, was ordered to be used night and morning, and confection of senna with sulphur to be taken to keep the bowels gently acting. This prescription afforded immediate relief; in three weeks the ulcer was healed and the child perfectly cured.

In children suffering from hereditary syphilis, numerous small cracks round the anus are common, and they cause much pain. Mercurial applications and extreme cleanliness soon cure them, but they will return from time to time unless anti-syphilitic medicines be taken for a lengthened period.

If the fissure is of recent origin it may often be cured without operation, especially if it be situated anteriorly. In women this can almost certainly be accomplished. Of

all the varieties of fissure the syphilitic is most amenable to general treatment. When of syphilitic origin they are often multiple.

In all cases, rest in the recumbent position should, as much as possible, be adopted. Mild laxatives should be given, not to purge but to keep the bowels acting once daily; this may sometimes be effected by diet alone. The domestic remedy of figs soaked in sweet oil, or onions and milk at bedtime, may be sufficient. I often order a combination of equal parts of the confection of sulphur and confection of senna; small doses of sulphate of magnesia or sulphate of potash, half a tumbler of Pullna or Friedrichshall water taken in the morning fasting, the compound liquorice powder of the German pharmacopœia, and the liquid extract of the *Rhamnus frangula* are great favourites of mine.

You must be prepared to alternate the medicines as one or other seems to lose its effect. All drastic purges should be avoided, but I do not object to small doses of the aqueous extract of aloes, especially when combined with *nux vomica* and iron. It will be an advantage if the patient can manage to get the bowels to act the last thing at night instead of in the morning, as the rest is very beneficial and the pain does not continue so long when lying down. After the action

℞ *Liq. opii sedativ.* ʒss
Mist. amyli. ʒij—M.

may be injected. This is especially valuable if the patient has the bowels relieved at bedtime. As an application I know nothing better than the following ointment:—

℞ *Hyd. subchlor.* gr. iv
Pulv. opii gr. ij
Ext. belladonnæ gr. ij
Ung. sambuci ʒj—M.

to be applied frequently. I have effected many cures with this ointment alone. Another excellent ointment sometimes used is:—

Plumb. acetatis	gr. x
Zinci oxidi	gr. x
Pulv. calaminæ	gr. xx
Adeps benzoat.	ʒss—M.

An occasional very *light* touch with the nitrate of silver (not to cauterise, but to sheathe the part with an albuminate of silver) is useful, and it relieves pain for some time. If there be very great spasm of the sphincter, extract of belladonna may be thickly smeared around the anus over the muscle, and this I have at times found effective. If ointments do not agree with the sore, lotions may be preferable; Goulard water with opiates and sedatives may afford some temporary relief, but one must acknowledge that the best devised and most carefully carried out general treatment frequently fails, save in favourable cases.

Some authors specify the time at which this disease may be curable without operation, and say, 'If it has existed more than three months the attempt is hopeless,' but really the time is not of importance; the question is, what pathological changes have been brought about? I have cured fissure of months' standing when there was no great hypertrophy of the muscles. Here are some cases:—

Mrs. E——, æt. 24, was sent to me by Dr. Simpson, of the Old Kent Road. Five months before she was confined with her first child after a somewhat lingering labour. The first time the bowels acted she had pain; and ever since then she had never had an action without suffering. This had been gradually increasing, and her life had become almost unendurable, the pain lasting for hours and compelling her to lie down, so that she was quite unable to attend to her household duties. On examination a very characteristic dorsal fissure was seen; there was no polypus or piles. The rectum was generally healthy, and there was not very marked spasm or thickening of the sphincter. The bowels were confined. Ordered Magnes. sulph. ʒj., Ferri sulph. gr. j., Acid. sulph. dilut. ℥v, Inf. quassie ʒj., ter die; and to use the following ointment—Ung. hydrarg. subchlor. ʒj., Ext. opii, Ext. belladonnæ, aa gr. iij.; to be applied after action of the bowels and also at night. I touched the ulcer every other day with a solution of perchloride of mercury. In a fortnight the fissure was nearly healed, and she had scarcely any pain after defæcation. Soon after this I heard she had got quite well.

A city dignitary consulted me some time back, on the recommendation of his physician. His history was that for eighteen months or

more he had suffered pain on defæcation ; at times he was much better and only experienced uneasiness, and then again the pain returned as bad as ever. Homœopathy had been tried for some six or seven months, and he had derived benefit as far as his constipation was concerned, but the pain was no better. He had cultivated the habit of getting his bowels to act about six o'clock in the morning, so that afterwards he could return to bed and lie quiet for a couple of hours ; he was then able to get up and come to town by train without suffering much ; but if he had to travel soon after visiting the water-closet he was in pain all day. He was very careful in his diet, drank very little wine, and was accustomed to take oatmeal porridge, brown bread, fruits, and vegetables, which I dare say had more effect on his bowels than the globules of *nux vomica* to which he attributed his regularity. As he laid very much stress upon the use of these globules, and was strongly of opinion that he would have no action without them, I did not oppose their continuance, knowing, as I well do, how much the belief that a certain drug is beneficial tends to make it so. On examining this patient I found a small circular perineal ulcer situated at the upper edge of the external sphincter ; it was clean cut and inflamed. The rectum was otherwise healthy, and the sphincter was not much hypertrophied. Taking into consideration the length of time the ulcer had existed I advised incision, but that he would not listen to, so I prescribed my usual ointment, but was speedily obliged to leave out the extract of belladonna, as he was so sensitive to the action of this drug as to get dry mouth and dilated pupils with affected vision in twenty-four hours after applying it. After three weeks I found the ulcer was not any better, although I had varied my treatment, touched it with nitrate of silver, perchloride of mercury, &c. ; he had also used lotions of the tartrate and persulphate of iron. I had observed that there was one minute spot most excessively tender, much more so than the rest of the sore. There, no doubt, was an exposed nerve, so I took a hint from the late Mr. Hilton's work on 'Rest and Pain,' and applied, once, some acid nitrate of mercury. From that day the ulcer rapidly healed and soon this gentleman got perfectly well.

I may here remark that I have several times had a similar success from the fuming nitric acid, or strong carbonic acid, but I prefer the acid nitrate of mercury. I have had very good results from a suppository of black oxide of mercury.

A lad, æt. 19, came to me at St. Mark's with double fissure : both the ulcers were very well marked, and there was one on either side of the anus. He suffered the greatest pain for hours after defæcation. On examining him I found that he had a syphilitic rash—squamous and coppery ; his tonsils were ulcerated, and he had also enlarged and

hardened glands in his groin. He admitted that he had suffered from a sore on his penis, and had been treated for it at St. Bartholomew's Hospital; he did not know whether he had taken mercury or not. The sore on the penis had been well about five months, and the pain on going to stool had existed for four months. The rectum was healthy, and there were no mucous tubercles. I put him on a course of bichloride of mercury and tonics, as he was much out of health; he took the hospital confection to keep his bowels gently acting, and used strong calomel ointment with powdered opium; after three weeks' treatment the fissures had quite healed, so then he ceased to attend, although his syphilitic symptoms had not disappeared.

In my opinion, if the base of the ulcer be grey and hard, and if on passing the finger into the bowel you find the sphincter hypertrophic and spasmodically contracted, feeling as it often does like a strong indiarubber band with its upper edge sharply and hardly defined, or if there should be a polypus, polypoid growth, or any other complication, nothing but the removal of these growths and the adoption of such means as will utterly and entirely prevent all action of the muscle, for a greater or less length of time, is likely to effect a cure of the fissure.

Operative
treatment

There has been a controversy at various times as to the depth of incision necessary to cure a fissure, some advocating a slight cut and others a free one. There is no doubt that in some cases a very superficial incision through the base of the fissure, so as to divide the fibres of the muscles immediately beneath the ulcer, or even to cut through an *inflamed filament of nerve*, may be enough; for if you carefully examine one of these ulcers or fissures, you will usually find one or more spots that are most exquisitely tender; this is where the nerve is exposed. The lightest drawing of the knife across the ulcer, if done at the right point, will be sufficient to divide this nerve, and to induce cessation of the pain for some little time; but the muscle beneath being irritated and hypertrophied prevents, by its movements, the ulcer from healing, and very soon the pain will be re-established; hence the necessity in all but the slightest cases for the division of the sphincter.

By in-
cision

When the muscle is cut the divided fibres retract, and they do not unite so quickly as the ulcer heals; the result

is that the muscle, being set quite at rest, soon loses its hypertrophy and irritability. I have often noticed, after a fissure has been cured, how much reduced in size and thickness both the sphincters have become. The cause of failure after imperfect division of the muscle is, that entire quiet is not obtained; the undivided fibres, though paralysed for a time, soon recover themselves, and the old contraction is resumed before the ulcer has had time to heal, so that very speedily it re-assumes its former character.

You need not cut right through both sphincters into the cellular space beneath, as the older surgeons used to do, but I am sure that a fairly free incision heals quite as quickly as a small one, and that it is much better to cut rather too deeply than too superficially.

Those who are in favour of a slight cut say that incontinence of fæces may be brought about by too free an incision through the muscles. That may be the case when the cut is not properly made, *i.e.* when the muscles are not cut at right angles to the direction of their fibres. An incision at right angles will join so as to leave a perfect narrow scar, but an oblique incision leaves a very weak, wide scar. I am quite certain that both the internal and external sphincter muscles (on one side only) may be divided entirely in a healthy person, without any danger of a weak bowel following.

You may be confident that your patient will not readily pardon your not curing him at the first operation, and will be very disinclined to submit to a second incision should the first have failed. Most likely he will take himself out of your hands, and seek other advice; it has occurred to me to have to operate upon patients, both hospital and private, where eminent surgeons had failed to effect a cure, and I have found that failure had resulted from one of two causes, either the too sparing use of the knife, or the over-looking of a polypus.

When operating, if not very *au fait* at rectal surgery, I should advise you to introduce a speculum; you then see exactly where your knife should go, and the parts are also rendered tense, so that their division is facilitated. The

incision should commence a little above the upper end of the fissure, and terminate a little beyond the outer end, so that the whole sore is cut through; as a general rule, the depth of incision should not be less than a quarter of an inch. If the outer end of the fissure be marked by a swollen inflamed piece of skin, it is better to remove that with a pair of scissors, for by so doing the healing process is greatly expedited; the small *polypoid* growth also, so frequently found in fissure, should at the same time be snipped off. Please to note that I am not recommending the cutting off of true rectal *polypi*.

It has been suggested that a curved bistoury may be passed beneath the ulcer, and the cut made from beneath towards the bowel. I do not see any advantage in this mode of operating; for my own part, I always insert my forefinger into the bowel, feel the situation of the fissure, pass upon my finger a straight knife with a rounded point, then turn the edge to the base of the ulcer and make the incision; or, the knife-blade can be laid flat upon the forefinger and both introduced together into the bowel, and the cut then made; this is a good plan where there is much spasm of the sphincter. When the fissure is quite dorsal, the cut should be made not directly through it, but somewhat laterally, by which means you are certain of completely dividing the fibres of the muscle, and the wound will heal more readily. A small piece of cotton wool may be placed in the wound, and allowed to remain for twenty-four or forty-eight hours. It is well to keep the bowels confined for two or three days.

Usually the patient should be kept in bed until the wound is completely healed. The after-treatment must be the same as that advocated after the operation for fistula. It is absolutely necessary when there is any uterine complication that the patient be kept entirely at rest and lying down until the wound has soundly healed, for, most assuredly, if she gets about too soon either the wound will not close, or a worse result—viz. unhealthy ulceration—will ensue. I have seen many cases showing the good policy of long-continued rest, and numbers more where bad results

have followed a speedy resumption of ordinary duties; on this point I could relate numerous illustrative cases, but one shall suffice.

Ada T—— was admitted into St. Mark's Hospital. She was twenty-four years of age, was married, and had five children; she was in the hospital three months ago, and was operated upon by Mr. Lane for fissure; she left not quite well. It was noted on her card that she suffered from retroversion, and had an enlarged uterus. On examining her, on her re-admission, rather extensive, but superficial, ulceration was found to have taken place since her going out. The ulceration extended above the upper edge of the internal sphincter. She had a good deal of pain and frequent harassing diarrhoea. There was no history or sign of syphilis. After three months' treatment by injections, sedative and astringent, and the internal administration of iodide of potassium and tonics, she was discharged cured. The uterus was kept in its place by means of a Hodge's pessary.

I have sometimes noticed three distinct well-marked fissures in one patient. I have seen in the practice of my colleagues at St. Mark's many instances of multiple fissure. I may here mention that if you are obliged to operate upon a multiple fissure *one* incision through the sphincter will be sufficient.

By dilata-
tion

Dr. Dolbeau, of Paris, is strongly in favour of forced dilatation of the sphincter, originated by Recamier, in the treatment of anal fissure; in fact he scarcely admits of any other method.

This method of forcible dilatation should never be employed without the use of an anæsthetic. When anæsthetics cannot be administered, incision is more rapid and less painful. I just mention this, as my first experience of this dilatation was in Paris. I will describe literally what I saw, and it was so repugnant to my feelings that I was greatly disinclined to it. A male patient was brought into the theatre suffering from fissure of the anus. The surgeon introduced one finger into the anus and then another until he gradually, but with much pressure, got the whole hand into the rectum; he then made a fist of his hand and forcibly drew it out. The cries of the patient were really heart-rending, and six or seven assistants were employed in holding him down.

Of late years I have repeatedly dilated the sphincter for the cure of fissure, and as I do it, the operation is not violent and the result is on the whole very satisfactory. The patient being thoroughly placed under the influence of an anæsthetic, I introduce my two thumbs, one after the other, taking care to press the ball of one thumb over the fissure and the other directly opposite to it; this prevents the fissure from being torn through and the mucous membrane stripped off. I now gradually separate my thumbs; then I repeat the stretching in the opposite direction, *i.e.* at right angles to my first; then in other directions, until I have gone round the anus. I then apply considerable pressure to the sphincter muscles all round, pulling apart the anus with four fingers, two on each side, and kneading the muscles thoroughly; by thus gently pressing and pulling, the sphincters completely give way, and the muscle, previously hard, feels like a well-beaten beef-steak or even putty. This will occupy at least five or six minutes to do thoroughly; there is scarcely more than a drop or two of blood seen, but you can see that the anus is bruised, and for a few days extravasation is noticed, the part gradually undergoing the changes of colour usually observed in any bruise. This operation is perfectly safe and almost painless. I place in the rectum a suppository of half a grain of morphia and apply cold. I am bound to say that since I have dilated as above described, I have never failed to cure a patient in suitable cases.

I saw, with Dr. Robert Mitchell, of Lewisham, a gentleman of more than eighty, who suffered greatly from a fissure of long standing, in conjunction with some hæmorrhoids. He was too old to allow me to press a cutting operation, but dilatation perfectly cured him in eight days.

A post-mortem examination was made in Paris on a girl, who died of cholera within a few hours of having forcible dilatation made for the cure of fissure. The surgeon—whose name I have forgotten—states that none of the fibres of the sphincter muscles were in the least degree torn, though the mucous membrane was slightly lacerated.

I will now endeavour to point out the cases which I think most suitable for incision, and those suitable for dilatation.

Incision

I think it wise to incise all ulcers situated about the *internal* sphincter, for only by so doing can a certain cure be effected. Here are my reasons; if dilatation is employed the sphincters rapidly recover their power and fæcal matter may collect in the ulcer, irritate it again, and prevent healing. But by a complete division of the external sphincter you can obtain a somewhat lengthy paralysis and a good drain, so that motion cannot be retained in the ulcer; moreover, the ulcer can be easily dressed and made to heal from the bottom.

In old, large, or indurated fissures situated about the external sphincter, division is the safer operation. When fissure or ulcer is complicated with piles or fistula, division is best, for the wound caused by the cut heals at the same time as those caused by the removal of the piles or the division of the fistula.

Dilatation

Forcible dilatation may be used with advantage in simple fissures about the verge of the anus over the *external* sphincter. It is the safest operation to employ in the old, in phthisical patients, or those broken down in health. In children it may be used as a method of cure when there is congenital narrowness of the anus, or when the fissures are multiple and probably caused by constipation. If a polypus or polypoid growth exists in conjunction with fissure, the polypus must be ligatured, the polypoid growth snipped off, and dilatation effected to cure the fissure.

Subcutaneous division as a mode of treatment

Many years ago I was in the habit of subcutaneously dividing the sphincter in cases of fissure, and recently Mr. Pick, of St. George's Hospital, has spoken favourably of the method. For my own part, I gave it up because there is great difficulty in knowing whether enough of the sphincter muscles has been divided. Again, when the patient is under ether the muscle has little tension, and it is nearly impossible to cut with precision. I also found much pain after the operation, and very uncertain results; abscesses occurred in more than one instance.

CHAPTER XVIII.

FISSURE: ITS RELATION TO NEURALGIA OF THE RECTUM.

I CAN see no reason why neuralgia should not sometimes Neuralgia attack the rectum as well as any other part of the body. No doubt many other affections have been erroneously called neuralgic, and I am ready to confess that I have more than once considered pains as neuralgic which I later on discovered to originate from a lesion of structure.

Very slight erosions or even inflammation of a spot in the rectum may set up much pain; and at the same time be so difficult to discover as to baffle the closest and most searching investigation.

Fissures, or irritable ulcers, not very uncommonly give rise to a train of nervous and hypochondriacal sensations, which continue even after the ulcer itself has healed. I have seen examples of this in both hospital and private practice, and both in men and women.

An elderly maiden lady has been seen by me at various times for the last four or five years, her history being that, fully five years back, she had a small painful uleer situated over the upper part of the internal sphincter muscle, which was much hypertrophied and spasmodically contracted. A limited division of the muscle failed to effect a cure, and after six months' trial to get the uleer to heal I again operated, this time assisted by my friend Dr. Crosby. I made a very free incision through both muscles, and after that there was no difficulty, the wound healed thoroughly and soundly; but ever since then, although there is not the slightest lesion of the bowel—I have often examined her with both speculum and endoscope in the most thorough manner to be sure of that fact—she frequently, indeed almost constantly, complains of her old pain. There is a burning, uneasy sensation in the bowel, but no local tenderness to touch. She cannot walk about much, nor sit long in one position, nor ride far in any vehicle without suffering. She is stout, looks well, and her general

health has not suffered. There is no discharge of any kind, mucous, purulent, or bloody; and, as a rule, she does not have pain on defæcation. There is no abnormal redness or heat of the bowel, although she always has the sensation of great heat in the part. She has no uterine affection (two eminent obstetric physicians have examined her and say so), and she has ceased menstruating some years.

Causes of
pain

Now, what is the matter with this patient? Some may call it neuralgia or hysteria; but it has resisted all the usual remedies prescribed for these complaints, including hypodermic injections of morphia and quinine; in fact, she has taken all kinds of remedies prescribed by other medical men as well as myself. I have two ideas as to the cause of suffering in this case: The first is, that it is possible that some filament of nerve is included in the cicatrix of the wound, and thus irritation or inflammation is kept up, as one sees occasionally after amputations of the extremities; the second idea is, that her mind has been dwelling for so long a time on the state of her bowel that, although now there is nothing organically the matter with her, she retains the power, by mental concentration, of reproducing the sensation of pain in the old spot. This may not be the correct explanation, but there is some evidence, I think, tending to show that it possibly is so: for instance, the pain is not always consistent in its behaviour; the bowels act generally without pain; the pain does not come on directly after defæcation, but some hours after; sometimes the pain sets in before the action, and is removed or relieved by the bowel being emptied (a condition of things quite inconsistent with the presence of true ulcer or fissure). Then, again, when the patient is occupied pleasantly or intently she has no pain, but it can be produced immediately by excitement of a disagreeable kind; it is also uncertain in its coming and going, as well as in its character; sometimes it is smarting, then burning, as if the rectum were very hot; at another time pulsation is the chief annoyance, or the bowel may feel quite plugged up as if the anus were swollen; and then suddenly the pain is lancinating, forcing her to call out: all this leads me to think that the cause of the pain is mental.

Whatever may be the explanation, the fact is clear that

here is a person who has no discoverable lesion of structure in a part, almost constantly suffering all the pain and misery which was formerly induced by a marked organic disease. This patient has written to me stating that she is now quite well, although nothing special has been done for her. I have not related this case because it is unique; I have seen others precisely similar, both in men and women. I know for years I was tormented at the hospital by a man, perfectly healthy and strong-looking, who used constantly to attend the out-patient room complaining of a dreadful burning and painful sensation in the rectum a little way from the anus; he said it kept him awake at night, haunted him all day, was never out of his thoughts, and made his life utterly miserable. I examined him many times and could never detect anything abnormal (he had been operated upon for fissure, years before I saw him, by the late Mr. Salmon); there was no redness, no discharge, and the thermometer showed no excessive heat; in fact there was nothing to be seen or felt. No remedy did him any permanent good, but he was always a little benefited by a fresh one. He used to leave me every now and again and go to one of my colleagues, and glad I was to be quit of him, but in a few months he was sure to come back, and not a whit better for what had been done for him. I called the malady hypochondriasis, but I suppose that was only expressing by a long word that I did not understand what was the matter with him. I can emphatically say that such patients are about the most unsatisfactory you can have.

Dr. Dolbeau, of Paris, considers the essence of fissure to be neuralgic, and defines 'fissure of the anus as being a spasmodic neuralgia of the anus with or without fissure.' He states that he has seen cases where all the intense pain and agony of fissure were present, but no structural lesion whatever could be detected. For my own part I cannot wholly subscribe to this view; out of the thousands of patients who have been under my care suffering from rectal diseases, I have never yet met with a case in which the persistent, regularly repeated, intense pain, commencing on passing or immediately after the passing of a motion, which

Neuralgic
pains

distinguishes fissure, was not associated with an anatomical lesion, though that lesion might be very slight and difficult to discover.

Spasm of
sphincter
as a cause

I have seen a good many nervous patients who complained of rectal or anal pains severe in character, but still wanting the essential characteristics of the pain of fissure. I have also observed cases of spasmodic contraction of the sphincter inducing obstinate constipation and attended with pain, but not at all strongly resembling the paroxysm due to fissure; often a sudden spasmodic acute stab seems to run up the bowel just before action, but when the fæcal mass is passed a feeling of relief and comfort is experienced. I do not say that neuralgia may not co-exist with fissure, and modify or aggravate the suffering, but I think if it were the essential cause of the pain I should be justified in expecting that this would occasionally yield to the internal exhibition of anti-neuralgic remedies, a result which certainly is not within the range of my knowledge. I am inclined, but doubtingly, to express the opinion that the one essential of the malady in its severest form is an exposed nerve, and that the spasmodic contraction of the sphincter, excited by reflex irritation, occasions the peculiar character of the pain.

I have been in the habit of calling pain in the rectum or sphincter muscles neuralgic when I have not been able to find out the slightest lesion, sign of inflammation, or discharge of any kind, and where the pain was not aggravated by action of the bowels; this I always consider an important point in diagnosis.

In my cases the pain has been at times severe, at others absent, and only in two instances was it constant. The patients have been mostly delicate, irritable, or nervous people, who have been subject to neuralgic pains in other parts. I have noticed the attack follow direct exposure to wet and cold by sitting upon damp grass. One attack predisposes to another; several times in private practice I have been consulted by the same patient.

Treatment

Usually you will find in these cases general debility, but in addition disorders of the digestive organs; very often

the liver is much affected; it will therefore not do to commence your treatment with tonics and anti-neuralgic remedies; first of all unload and put the abdominal viscera into condition, and then quinine, iron, strychnia, and hypodermic injections of morphia may at once cure your patient. Attention to this point is all-important; in some instances, however, one has to confess to an inability to do more than temporary good; nothing appears to cure the malady.

When the pain seems quite confined to the sphincter muscle there is always spasmodic contraction, and I believe forcible dilatation of the anus, performed as I have before described, to be the best treatment. After this is done a hypodermic injection of morphia will often cure this affection, which I consider a very intractable form of myalgia or neuralgia. When neuralgic the dilatation of the anus stretches the nerves and so may effect a cure, as is the case when the sciatic nerve is stretched for sciatica.

There are other nervous diseases of the rectum described by authors, but they are very rare indeed; one of them, which is called 'irritable rectum,' I think is really the result of a chronic inflammation of the mucous membrane, as in such cases I have observed much heat in the bowel and tenesmus, as well as a discharge of mucus. These cases are best treated by very gentle laxatives to keep the bowels acting, by alkalies with bitter infusions, and by insufflation of bismuth and charcoal into the rectum. This treatment will soon allay the irritability, and after this is accomplished the cure will be rendered permanent by injections of rhatany and starch, with small doses of the liquid extract of opium.

CHAPTER XIX.

PERSISTENT CONSTIPATION CONSIDERED FROM A SURGICAL
POINT OF VIEW.

As to use of
drugs in
constipa-
tion

MANY able and interesting papers have been written upon the medical treatment of this common and troublesome complaint, for it often greatly affects the constitution of the patient, making him dull and nervous, deranging the digestive system, and thus giving rise to very severe reflex symptoms. No doubt ill-health may be the cause of constipation, but on the other hand constipation may be the primary cause of ill-health. For retained fæces poison the blood, and then the body is ill-nourished. Therefore I am certain that for the cure of constipation the system should be speedily relieved of the poisonous matter. I have constantly seen patients who have been purged over and over again for constipation, or have been treated by stimulating drugs, such as belladonna, strychnia, &c., when the system was not fit to properly assimilate them. Drugs, of course, act differently on people in different conditions; quinine given to a healthy person will act more powerfully, being readily absorbed into the system. But in fever larger doses may be required to produce the effect of a small dose given to a patient in moderately good health.

In constipation there is a lack of vitality and of the power to absorb or assimilate. As a result of this, the drugs that have been given may become accumulated and may only tend to add to the disturbance of the system instead of relieving it.

It is for this reason that I hold that, previously to the medical treatment of bad constipation, you should, as far as possible, empty the colon of its poisonous contents by

mechanical means. After this your medicine will be more likely to be properly assimilated, and to prevent a recurrence of this distressing complaint.

No doubt the first beginnings of constipation may be cured by the use of drugs, for then the patient is in a tolerably normal state of health. But when this constipation has become inveterate and much fæces have been accumulated, it is then that the system becomes poisoned and medicines lose their due effect.

I do not propose here to deal with the medical treatment of constipation, but will only consider it from a surgical point of view.

Spasm with hypertrophy of the sphincters is not at all an uncommon cause of *persistent* constipation. This spasm with hypertrophy may not primarily exist, being first induced by an *attack* of constipation, and then itself making the constipation persistent and perhaps incurable.

Spasm with hypertrophy as a cause

These slight attacks of constipation may have been brought about by many causes, especially by the irregular way in which the patient has attended to the action of his bowels. He does not go to stool at fixed times, or resists the call of nature. Somewhat later he tries to make his bowels act when nature is reluctant. As a consequence of this no evacuation may follow.

Then he waits another day and again does not respond to nature's promptings. After a time the colon and rectum resent this treatment, and fæces begin to accumulate. Then at last the mischief commences. The colon and rectum become over-distended and cannot act with full force. Moreover, the fluid matter of the fæces gets absorbed, leaving the fæces themselves hard and dry, and the muscular tissue of the bowel, being ill-nourished and perhaps poisoned by the blood which is impregnated with this poisonous matter, cannot exert sufficient power. The patient, on going to stool, strains often with little or no result. From this straining and from the irritation set up by the fæces the sphincters become hypertrophied and thrown into spasm. Hence worse constipation.

I have generally noticed that when you tell a patient

Examination

suffering from constipation to bear down, in consequence of the spasm with hypertrophy, no dilatation of the anus will follow. The anus pouts and looks nipple-like, and on the introduction of the finger the sphincters are found to be very tight and broad. Not unfrequently in adults a little proctitis caused by retained fæces may, by giving rise to induration, assist in promoting this condition; the same may be said of patients afflicted with syphilis.

But also this spasmodic hypertrophy may occur with no perceptible cause, though really due to reflex irritation set up by the retained fæces.

I may perhaps make this matter clearer by citing a parallel case.

We know what spasm occurs in the orbicularis palpebrarum when the eye is affected with corneal ulcer. The explanation of this is not quite certain; but some say that the irritation excited in the nerves of the cornea, either by light or by the movement of the lids, reflexly causes spasm and hypertrophy of the orbicularis palpebrarum. Now may not the sphincter ani in the same manner become hypertrophied, or at least thrown into spasm, by the irritation of an abnormal amount of fæces in the colon and rectum?

No doubt the corneal ulcer is the primary cause of the spasm of the lids; but this spasm, when once induced, keeps the ulcers active and prevents their healing. Then you cannot cure the ulcers by attacking them locally or constitutionally, but must remedy the spasm by division of the orbicularis palpebrarum.

In like manner slight constipation may be the cause of the spasm of the sphincter ani, but this spasm, when once started, keeps the constipation active and prevents its cure.

Then you cannot relieve the constipation by purgatives, but must first put an end to the spasm by forcible dilatation or by the passage of bougies.

Another very important cause of constipation is a congenital narrowness of the anal orifice, which is generally not sufficiently marked to be noticed when the child is born. Perhaps the only symptom the mother observes is

Congenital
narrowness
of anus as a
cause

that the child is costive; this she usually puts down to errors in diet. Again it is not so noticeable when the child is very young, for then the fæces are liquid and can pass away more easily. As the child grows older, and the motions become more solid, the trouble begins. He only succeeds in obtaining an evacuation when the contents of the bowels have been made liquid by purgatives. I have seen patients at the age of twenty, or even older, who say that they have always been costive, and have rarely obtained relief without the use of purgatives. With such a history a careful examination of the rectum should always be made.

In those of feeble constitution, and especially in the old, constipation may result from atony of the muscular tissue and of the bowel, combined with a loss of muscular sense.

Atony

Intussusception of the rectum, or what I have described as the third kind of procidentia, may also lead to severe constipation, and should be sought for when other causes are not apparent: malformations of the uterus or enlarged prostate may also be troublesome causes of constipation, by mechanically interfering with the passage of fæces. All the above-mentioned conditions may give rise to constipation unaccompanied by any other symptoms. Thus they will not be referred to by the patient, and may not be suspected by the surgeon. I may here mention that constipation may be one of the results of polypus, piles, fissure, malignant disease, or stricture. In these conditions the patient generally complains of the particular symptoms of his ailment, of which constipation may only be one among many others.

Intussus-
ceptionOther
causes

When treating a case of persistent constipation, I would strongly advise a thorough examination of the anus and rectum, for by finding any of the above-enumerated causes much time may be saved in the treatment and the patient be permanently cured. Unless this search is made, purgatives may, as is too frequently the case, be administered for years, giving only temporary relief; for if any of these causes or perpetuators of constipation do exist, a permanent cure cannot be effected until they have been removed.

Treatment

As an adjunct to all methods of treatment of constipation, the colon and rectum should be fully cleared out by a copious enema. Enemata are often given in such a perfunctory manner that I think a few words on their proper use may not be amiss. To my idea the ordinary enema-tube is too small—that is to say, the opening does not allow a sufficient volume of water to be poured into the bowel at one pump. Now a large jet of water soon breaks up a mass of *fæces*, whereas a small jet only gently plays upon it and is of no real, material use. Moreover, as a rule, the part of the tube to be introduced into the bowel is not long enough, and I should never recommend one shorter than six inches. The calibre of the tube should be not less than one-third of an inch in diameter, and the opening should be at the top. The tube just described is sufficiently large for administering an ordinary enema, but in bad cases of constipation a much longer tube is very advantageous, such as O'Beirne's, which varies from two to three feet in length.

Mode of introducing long tubes

There is frequently considerable difficulty in introducing these longer tubes. When passed into the bowel the tube often curls up in consequence of its impinging on the promontory of the sacrum. It then bends round again towards the anus, so that, although twelve inches or more of the tube have been introduced, it may have reached hardly any way into the bowel, and its point be near the anus. Even if the promontory of the sacrum has been successfully passed, another difficulty may arise: the end of the tube may be caught in the sigmoid flexure, especially if that has a long mesentery or is much convoluted. Often on reaching this part the tube is stopped, and, on account of its flexible nature, no directing from the portion outside the anus can affect its point. Thus the tube does not get up into the colon, where there may be a large accumulation of *fæces*, and no powerful play of water can be brought to bear upon the mass or upon any possible intussusception.

I will now describe how the long tube should be used:—

Introduce the left forefinger into the rectum and feel for the promontory of the sacrum. Then pass the tube

along the finger and guide it with the latter beyond the promontory. One probable barrier has then been passed. Now to assist the tube's onward progress through the sigmoid flexure inject water, simultaneously pushing the tube up the bowel. By so doing the intestine just in front of the tube is dilated, and any possible hitching prevented. However, even in the most skilled hands, there have been frequent failures to pass O'Beirne's tube. I have therefore devised the instrument now to be described. As the ordinary tube is so very pliable no manipulation of the base can in any way direct the point with any certainty. I have had constructed by Krohne and Seseman a pewter guide to fit into the tube. Pewter was chosen because it is soft enough to allow of being bent, but at the same time hard enough to indicate where the point is and to enable you to guide it; moreover it does not fracture, and when bent into a certain position maintains that position.

Allingham
jun.'s
new instru-
ment

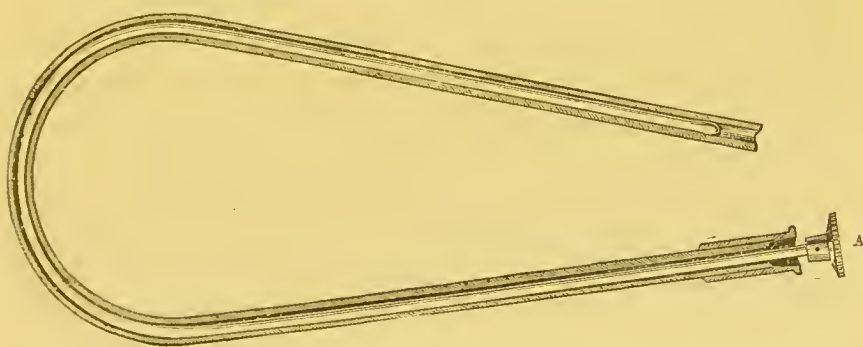


FIG. 40.

The pewter staff A fits into an O'Beirne's tube, but not too tightly (see diagram 40). The following is the method of use.

The pewter stem having been inserted into the O'Beirne's tube, the uppermost part of the tube—that is to say, the part first to be introduced—should be bent into the shape of a long S, and at the same time slightly twisted, so as to present the appearance of a drawn-out corkscrew.

How to be
used

With the patient on his right side, pass the tube into the rectum and turn it about until the point glides by the promontory of the sacrum. Should there be any hitch, slightly

withdraw it and manipulate again, of course using no force. By this method the tube can be easily passed into the colon, however convoluted the sigmoid flexure may be. Through having the tube stiff, you can make its point project and can feel it through the abdominal wall. You can then, if necessary, bend it again by external pressure from the front of the belly. When this instrument has reached the splenic flexure withdraw about six inches of the pewter staff from the O'Beirne's tube. The top of the tube is then in a flexible state, and with a little persuasion may be made to pass into the transverse colon. As the tube continues to travel along the transverse colon, withdraw more and more of the staff until the O'Beirne ceases to go any further. Then withdraw the whole of the staff, attach a syringe, and inject. While injecting, attempt, if you think necessary, to pass more of the tube, so that it may go down the ascending colon. By these manœuvres the cæcum may be reached, and impactions in that region easily broken up. I think this instrument may be useful as a means of diagnosis as to whether there is an obstruction in the large intestine, and, if so, in what part of it. It may also be advantageous in the treatment of intussusception.

Forcible
dilatation

When persistent constipation is complicated with, or caused by, spasm with hypertrophy of the sphincters, a cure may be effected by forcible dilatation of the anus. This does away with a mechanical obstruction and also seems, in some manner which I cannot quite explain, to influence the action of the large intestine. In less severe cases, or in those who will not submit to forcible dilatation, some good may be obtained by the passage of bougies daily increasing in size.

Bougies

When one has to deal with constipation caused by congenital narrowness of the anus, forcible dilatation or division of the sphincters, followed for some considerable time by the use of bougies, is the only satisfactory mode of treatment.

Galvanism

Constipation in the old or feeble, when it is due to a want of power of the muscular tissue of the rectum and colon, may be benefited by a systematic course of galvanism,

one pole being placed in the rectum and the other being moved about over the surface of the abdomen.

Massage, too, has sometimes proved very serviceable.

Massage

In those women whose abdominal walls are lax and pendulous, from repeated pregnancies, an abdominal belt will sometimes, from the support which it gives to the intestines, materially assist in relieving obstinate constipation.

Abdominal
belt

When it has been found that constipation is the result of malposition of the uterus, enlarged prostate, intussusception, fissure, piles, polypus, &c., these causes should, as far as possible, be removed.

A good deal has been said lately about the efficacy in constipation of injections of glycerine into the rectum. I have tried this frequently, but must say that it, like most other injections, is only of service so long as it acts as a local irritant. As soon as the rectum becomes accustomed to it, it is of no more benefit than the ordinary injection of warm water.

Injection
of irritant

I will now very briefly relate one or two typical cases:—

CASE 1.—Mrs. C——, aged 41, consulted me about obstinate constipation from which she had suffered for many years. On examination I found the sphincter ani in a state of spasm with hypertrophy. I advised her to submit to forcible dilatation, to which she readily consented in the hope of obtaining relief from her burdensome complaint. After thorough dilatation, and the administration of enemata in the way I have described, she soon improved, and is now perfectly well, the bowels acting daily.

CASE 2.—May T——, aged 15, was brought to me by her mother. She had suffered from severe constipation all her life, and on examination I found the anus so small as not to admit my little finger. In this case I forcibly dilated the sphincters, and advised her mother to pass a good-sized bougie daily for a month, and then once a week for six months. The result was perfect, as she was entirely cured of her constipation.

CASE 3.—Major B—— came to me suffering from obstinate constipation of years' standing. I found hypertrophy of the sphincters. I advised dilatation, but he objected; so I recommended the injection of a teaspoonful of glycerine. In a week he came to me delighted with the result; but after another week he called and said the glycerine was no good whatever, and did not act even when he injected an ounce.

CHAPTER XX.

IMPACTION OF FÆCES AND CONCRETIONS IN THE RECTUM.

Impaction THE result of an attack of constipation may be a collection of clayey fæces, formed in the cæcum or in any part of the colon ; but the term ‘impaction’ is generally used when the accumulation takes place in the pouch of the rectum immediately above the internal sphincter muscle. This is its most frequent situation, and here a very large deposit, more or less globular in shape, is often found. I have purposely considered the ailment in a separate chapter from that on persistent constipation. Impaction of fæces may follow from a single attack of constipation, whereas persistent constipation may never, or only after a long period, cause impaction. Again, the symptoms of the two conditions are very different ; impaction is generally marked by diarrrhœa, whereas in persistent constipation the prominent symptom is constipation. It occurs in females more commonly than in males ; old women, and women shortly after their confinements, being especially liable to it. In aged people very often one of the first indications of failing nerve-power is loss or diminution of the contractile force of the colon and consequent inaction of the bowels, leading to impaction.

I have seen some cases of impaction in hysterical young girls and in middle-aged females. I have also met with it in elderly men, but until recently I never had a well-marked example of this disorder in a young man ; but I have found it occur more than once in children. I saw a little boy only three years of age, who had a veritable impaction, which gave a good deal of trouble ; but when it was removed the bowel soon regained its tone, and regular action was afterwards easily kept up.

The cause of the accumulation I believe nearly always to be, primarily, a loss of power of the muscular coat of the rectum. This loss of power may have been produced by the pressure of the child's head during a long-protracted labour, or by over-distension of the bowel through neglect of the calls of nature, in which case the condition of the rectum much resembles that of a bladder paralysed from retention of urine. Causes

In impaction spasm of the sphincter always exists, in some instances to such a degree that when the patient strained I have observed the anus protrude like a nipple, and an injection return in a fine stream as if coming out of a squirt. I have certainly met with cases of idiopathic spasm of the sphincter, occurring for the most part in elderly, nervous, single women, and though no impaction was present, there was always more or less constipation.

The symptoms of impaction are not uncommonly very obscure, and the malady may be mistaken for something else. I was once called to see a lady labouring under impaction, and found that an eminent physician had recently declared her to be suffering from neuralgia of the bowel, and had ordered her quinine and steel, and I have heard of another case which was treated as gout in the rectum. I have met with several patients who were supposed to be the subjects of malignant disease of the cæcum or sigmoid flexure, from the fact of there being a tumour present, and from the patient's aspect, which is frequently very suggestive of cancer. I had a very marked case of impaction in a girl, thirteen years of age, which was supposed to be enlarged mesenteric glands, and was being treated with steel and cod-liver oil. I attended a gentleman who was believed by his physician to have incipient disease of the brain, so much nervousness and hypochondriasis resulted from a very loaded colon and impacted rectum. I had a case in a young lady which was said, by more than one medical man, to be phthisis, constant cough being present, with hectic at night, and much emaciation. And lastly, a very common but sad error is often committed: these patients are treated for diarrhœa with tenesmus, as a considerable fluid discharge Symptoms
and dia-
gnosis

from the bowel is not at all incompatible with great retention of solid fæces.

In the history of these cases it is not rare to find that severe pains have been experienced in the right lumbar and left inguinal regions. This symptom points to the fact that the cæcum had been the seat of obstruction and distension, and that when this was removed the fæces again lodged in the rectal pouch. The symptoms of impaction might be expected to be generally those of obstruction, and resemble in many respects those of stricture of the rectum, and sometimes this is so, but the presence of any jelly-like or coffee-ground discharge is an important point to be noticed in the diagnosis. The patient often really complains of a tendency to diarrhœa, liquid motions being frequently passed, especially after an aperient, but without any sense of relief, and on assuming the erect position, straining—severe, continuous, and irresistible—takes place. On lying down this generally gradually passes off for a time.

Dyspepsia, irritability of temper, nervousness and despondency, the patient supposing herself to be suffering from an incurable malady, a very muddy-yellow skin suggestive of malignant disease, morning vomiting, and a loathing of all food as soon as a few mouthfuls have been taken, excessive and very painful thirst, are among the common symptoms of this disorder. A peculiar ringing, barking cough, particularly in women, and also night-sweats, are not uncommon. In both men and women I have seen very obstinate retention of urine caused by impaction. All these symptoms may continue more or less urgent for months, and aperients and injections may be given without affording more than temporary relief.

Examina-
tion

When examining a patient, if you make careful palpation over the abdomen, tumours may be felt in the cæcum, the transverse colon, or the sigmoid flexure; under any circumstances, in the majority of cases, if you look at the anus you will see that it is nipple-shaped, and if you feel around the anus you will find the sphincter muscle tightly contracted and almost as hard as a piece of wood. It is only with difficulty that you can introduce your finger into the

bowel, and having done so you will find a ball of hardened clayey fæces filling up the rectal pouch. This ball I have seen almost as large as a foetal head, and quite movable, so as to admit of liquid or thin motion passing round by the sides of it, thus giving rise to the impression that diarrhœa rather than constipation existed. So deceptive is the feeling this mass gives to the finger, that I have more than once thought I must be touching a tumour; and I have been called in consultation several times by medical men, who had discovered the impaction, but could not believe that what they felt was only a collection of fæces.

The diagnosis, however, is usually not difficult if observations be carefully made. There are two points of distinction which may always be noticed: 1st. An examination from time to time will show that the tumour differs in size and shape—this the patient will often be the first to remark. 2nd. A very careful manipulation will detect that the tumour is irregularly soft and has a decided doughy feeling. When the tumour is in the sigmoid flexure or rectum the introduction of the finger will at once clear up the doubt, if there be any.

In bad cases you must commence the treatment of this Treatment malady by thoroughly breaking up the ball of fæces.

The best mode of accomplishing this is first to put the patient under an anæsthetic and then forcibly but slowly dilate the sphincters; this done you can get at the interior of the rectum without any difficulty, and break up the mass with your finger, or a lithotomy-scoop, or the handle of an old-fashioned silver-spoon. The spasm of the sphincters being thus overcome, you can do a great deal at one sitting—in fact quite empty the rectum.

In women you may assist this process of breaking up by introducing two fingers of the left hand into the vagina, and by pressing backwards fix the mass against the sacrum, so that it cannot slip up the bowel.

After you have thoroughly broken up the impacted mass you may administer injections of soap and water, oil and fresh ox-gall, and in this way you will often get rid of enormous quantities of fæces. When the ball occupying

the rectal pouch is cleared away, other masses generally come down, and I have seen as much as would fill two or three chamber utensils pass at one operation.

I have found, in several instances, the rectum so much dilated that the upper part of the bowel opened into the pouch like a pipe into a bladder.

It is often a considerable time before the rectum recovers its power after its great distension, and, therefore, you must take care that no re-accumulation takes place.

As in the treatment of persistent constipation, injections of cold water, kneading the abdomen, and the exhibition of the compound decoction of aloes with nux vomica, will be found useful. As soon as the bowel is thoroughly cleared out I am in the habit of prescribing the following pill, which is very effective in restoring power to the colon and rectum, thus inducing a regular action of the bowels:—

R Ferri sulph. exsicc.	gr. $\frac{1}{4}$
Quiniæ sulph.	gr. j
Ext. nuc. vom.	gr. $\frac{1}{4}$
Ext. aloes aq.	gr. j
Ext. tarax.	q. s.—M.
fiat pil.	

Take one three times a day after meals. Faradisation is most advantageous in these cases.

Persons of sedentary habits are especially liable to these attacks; exercise in the open air must therefore be taken daily.

The diet should not be too liberal. An elderly lady was a patient of mine on three occasions, with impaction and loaded cæcum, and I am sure it was because she was a very hearty eater and never took any exercise. I could neither persuade her to walk more or to eat less.

A very interesting case was sent me by Dr. Frodsham. The patient was an elderly person from the country, who was placed under Dr. Frodsham's care. She had been for a long time ill with severe pains in the bowels of a colicky character, not especially restricted to one part of the abdomen, which was much swollen. No tumour could be detected. She was subject to hiccough and flatulence. This was attended with dyspnœa and palpitation of the heart. She had on several occasions fainted away, and fears were entertained that the heart was not sound. Always, or nearly so, in conjunction with the

abdominal pain she had diarrhœa, copious coloured watery stools. For the correction of this, she had been prescribed opium with carminatives; a few doses generally gave her much relief. Her appetite was bad, and she had frequent retching and sometimes vomiting. Dr. Frodsham, not being satisfied with the case, sent her to me. She was fifty years of age, not ill-nourished, her face wore an anxious expression, and the complexion was muddy. Her general symptoms had existed over two years. The tongue was quite clean and too red. On examination the heart and lungs were found sound. The abdomen was much distended and the diaphragm forced upwards, causing dyspnœa when she lay down. The abdomen was globular, and there was no particular prominence in any one part. The skin was not shiny; on manipulation the abdomen felt doughy; it was also tender, so that she could not bear much kneading, but after a little pressure the transverse colon started into action, and it was felt to be very large. A flexible tube was easily passed eighteen inches, and on withdrawal, it was in parts smeared with fœces; on introducing the finger into the rectum the latter was found filled with clayey fœces. The diagnosis was great fœcal accumulation and slight impaction. I ordered her a pill of podophyllin, calomel, belladonna, and pil. colocynth co. three times in the day, and, every morning, an injection of a pint and a-half of thin gruel with two ounces of fresh ox-gall in it. On the third morning of this treatment she passed an enormous motion, more than enough to fill an ordinary chamber utensil. The same pills and enemata were continued now every day, and were followed by several enormous evacuations. I really may say that the quantity of fœcal matter she parted with would to most persons appear incredible. After ten days the medicine was changed to a combination of laxatives and tonics, which she continued for some time, but at the termination of three weeks all her discomforts were gone and she was quite slender as regards the abdomen.

Concretions in the bowel are rarer than impactions, but when they exist frequently give rise to the latter. They differ from these in that they are often formed round some foreign body, and are usually cylindrical in shape. Concretions consist of animal and vegetable fibres matted together around a nucleus which may vary according to circumstances. In one case a quantity of human hair formed the core; the patient had been in a lunatic asylum, and in a fit of mania had swallowed the hair. She had suffered from attacks of intestinal obstruction for months, and she always said there was something in the bowel which would not pass through the anus. She was brought to me at St. Mark's Hospital. I forcibly dilated her

Concre-
tions

sphincter and with a lithotomy-scoop and my finger succeeded, after some trouble, in removing a conical-shaped mass more than six inches in length by two inches and a quarter in diameter ; it was covered with pus and extremely fetid. On cutting through it, as I have mentioned, the centre was found to consist of human hair.

Another patient of mine, an elderly gentleman, had an obstruction of the rectum which I thought was an ordinary impaction, but it was not globular in form, and when I tried to break it up I could not do so, as it slipped away and was too tenacious. After dilating the sphincters I was able to get hold of it with a pair of lithotomy-forceps and gradually draw it out. The nucleus was a large biliary calculus, and around it were vegetable and animal fibres and dried fæces ; the whole was covered by a thick coating of mucus and pus. Eighteen months before, he had suffered from an attack of gall-stones, and no doubt this calculus had then lodged in the bowel, probably in one of the sacculi of the colon.

I have already related another case of this kind.

One more case I will record, as it is peculiar ; here a sovereign formed the nucleus. The patient, a woman, came to St. Mark's Hospital suffering from stricture of the rectum ; when I dilated the stricture I found a large mass above it. Purgatives and enemata not effecting its removal, I eventually brought it down with a scoop and my finger ; it was cylindrical in form. On tearing it up to examine its structure I found in its centre the coin I have mentioned. Quite fifteen months before, the woman had swallowed a sovereign, and she had sought for it in her motions, but had failed to find it ; she had not any idea that it had not passed. I think it very likely that at that time she had incipient stricture of the rectum, and consequently the piece of money did not escape from the bowel.

I will not occupy more space on this subject ; the cases are somewhat rare and the treatment simple enough. When the mass comes down near the anus it must be removed bodily ; you will find it so tenacious that you cannot break it up like an ordinary impaction. Unless you dilate the sphincter you will have very great difficulty in

extracting these concretions; in fact, it will be almost impossible to do so.

It is very curious how, sometimes, small substances fail to traverse the alimentary canal safely, and how, at other times, very large bodies pass without producing any severe or dangerous symptoms. There are cases related by Sir James Paget, Mr. Henry Smith, and others, where a considerable portion of a set of false teeth mounted in gold was swallowed and not arrested anywhere in the intestines.

There is one thing we should recollect when such a case comes before us—that is, never give a purge. You should tell your patient to eat very freely of solid material, such as suet-pudding, bread, and the like, so as to form full-sized cohesive motions. Treatment

CHAPTER XXI.

ULCERATION OF THE RECTUM.

ULCERATION extending above the internal sphincter, and frequently situated entirely above that muscle, is not a very uncommon disease; it inflicts great misery upon the patient, and, if neglected, leads to conditions quite incurable, and the patient dies of exhaustion unless extraordinary means are resorted to. In the earlier stages of the malady, careful, rational, and prolonged treatment is often successful, and the patient is restored to health; I wish I could say the same of the severe and long-standing cases. Ulceration of the rectum can be mistaken only for malignant disease; but when the symptoms are carefully considered, and the finger is well educated, there can but very occasionally be any error committed in diagnosis. As the earlier manifestations are fairly amenable to treatment, it is of the utmost importance that the disease should be recognised early. Unfortunately, it rarely is so; the symptoms are obscure and insidious, the suffering at first but slight, and thus the patient deceives, not only himself, but his medical attendants, by the little heed he gives to the complaint.

Varieties of
ulceration

There are various causes of ulceration of the rectum proper, and each variety gives rise to a specific kind of ulceration. These, for practical purposes, may be divided into tubercular, dysenteric, and syphilitic; the latter will be discussed in a separate chapter. The history, in the majority of cases, alone will indicate from which kind of ulceration the patient is suffering, and too much reliance should not be placed upon the feel or character of the ulcer.

Symptoms

In the majority of these cases the earliest symptom is

morning diarrhœa, and that of a peculiar character ; in my opinion it is quite indicative of the disease, and can be confounded only with similar symptoms due to cancer. The patient will tell you that the instant he gets out of bed he feels a most urgent desire to go to stool ; he does so, but the result is not satisfactory. What he passes is generally wind, a little loose motion, and some discharge resembling ' coffee grounds ' both in colour and consistency ; occasionally the discharge is like the ' white of an unboiled egg ; ' or ' a jelly-fish ; ' more rarely there is matter. The patient in all probability has tenesmus, and does not feel relieved ; there is a somewhat burning and uncomfortable sensation, but not actual pain ; before he is dressed very likely he has again to seek the closet ; this time he passes more motion, often lumpy, and occasionally smeared with blood. It may also happen that after breakfast, hot tea or coffee having been taken, the bowels will again act ; after this he feels all right, and goes about his business for the rest of the day, only, perhaps, being occasionally reminded by a disagreeable sensation that he has something wrong with his bowel. Not by any means always, but at times, the morning diarrhœa is attended with griping pain across the lower part of the abdomen and great flatulent distension. When a medical man is consulted the case is, in all probability, and quite excusably, considered one of diarrhœa of a dysenteric character, and treated with some stomachic and opiate mixture, which affords temporary relief. After this condition has lasted for some months, the length of this period of comparative quiescence being influenced by the seat of the ulceration and the rapidity of its extension, the patient begins to have more burning pain after an evacuation, there is also greater straining and an increase in the quantity of discharge from the bowel ; there is now not so much jelly-like matter, but more pus—more of the coffee-ground discharge and blood. The pain suffered is not very acute, but very wearying ; described as like a dull toothache, and it is induced now by much standing about or walking. At this stage of the complaint the diarrhœa comes on in the evening as well as the morning, and the patient's health

begins to give way, only triflingly so, perhaps, but he is dyspeptic, loses his appetite, and has pain in the rectum during the night, which disturbs his rest; he also has wandering and apparently anomalous pains in the back, hips, down the leg, and sometimes in the penis. There is yet another symptom present in the later stages, marking the existence of some slight contraction of the bowel—viz. alternating attacks of diarrhœa and constipation, and during the attacks of diarrhœa the patient passes a very large quantity of fæces. These seizures are attended with severe colicky pains in the abdomen, faintness, and not unfrequently sickness.

Patients suffering from ulceration are very liable to attacks of a low form of peritonitis, attended with considerable abdominal pain, often intense for a short period. There are generally one or more spots that are tender on pressure; there is tympanitis, often vomiting, especially on first assuming the erect position in the morning, and generally the pain is brought on by standing or moving about; these attacks are sure to end in diarrhœa.

When making a post-mortem examination in such cases I have observed effusion into the peritoneal cavity, and often considerable recent and old adhesions between the intestines; the peritoneum is also thickened. In bad ulceration you see what great destruction of tissue has taken place. I have found the whole of the rectum and sigmoid flexure involved in ulceration, and great thickening and contraction of the calibre of the bowel, caused by the attempts at repair in various parts. The connective tissue here and there is so removed as to leave large bridges of indurated muscle and roughened mucous membrane; and there is ulceration, so deep in places that perforation must have occurred but for the adhesions kindly made by nature to the adjacent parts. In other situations the muscular coat is laid quite bare, and I have seen more than one case in which necrosis of the sacrum had taken place.

Examina-
tion

On examining these cases of ulceration of the rectum, various conditions may be noticed according to the stage to which the disease has advanced. In the earlier period you

may often feel ulcers situated about one and a-half inches from the anus, varying in shape, some an inch long by half an inch wide, surrounded by a raised and sometimes hard edge; others may be undermined at their edges or punched out; there is acute pain caused on touching them, and they may be readily made to bleed. With a speculum you can distinctly see these ulcers, the bases greyish or very red and inflamed-looking or sloughing, the surrounding mucous membrane being probably healthy. In the neighbourhood of the ulcers may often be felt some lumps, which, when syphilitic, may be either gummata or enlarged rectal glands. This is the stage in which the disease is often curable, as I shall show when speaking of treatment. Later in the progress of the malady you will observe deep ulcers with great thickening of the mucous membrane, often also roughening to a considerable extent, as though the mucous membrane had been stripped off. At this stage you generally notice, outside the anus, swollen and tender flaps of skin, shiny, and covered with an ichorous discharge; these flaps are commonly club-shaped, and are met with also in malignant disease; but in the early development of the disease *no ulceration is found near the anus, nor at the aperture*. It is in private practice that we have the best opportunity of seeing these cases early, and I most positively repeat that the large majority do not commence by any manifestation at the anus, such as growths or sores—occasionally a fissure may be the first lesion, and the ulceration extend from the wound made in attempting to cure it—this is, however, the exception to the rule, and I will further on relate some cases to show that what I have stated is correct. So definite is this external appearance in long-standing disease, that one glance is sufficient to enable an expert to predicate the existence of either cancer or severe ulceration; these external enlargements are the result of the ulceration going on in the bowel and the irritation caused by almost constant discharge. The ulceration may be confined to a part of the circumference of the bowel, or it may extend all round, and for some distance up the rectum. It also probably will have travelled downwards close to the anus, and then the pain is sure to

be very severe, because the part is more sensitive and more exposed to external influences and accidents.

When the disease has reached this stage, of course stricture and most probably fistulæ will be present, as I have already mentioned; and possibly, but not frequently, perforation into the bladder, into the vagina, or the peritoneal cavity, may occur. The state of the patient is now most lamentable; his or her aspect resembles that of a sufferer from malignant disease, and no remedy short of colotomy offers much chance of even temporarily prolonging life. You may relieve these patients, but can rarely do more; a cure can scarcely be expected. I have seen ulceration utterly destroy both the anal sphincters, so that the anus was but a deep ragged hole. In the earlier stages of ulceration from whatever cause, save cancer, treatment carefully selected, judiciously varied, and persistently carried out may do much good, and in favourable cases even effect a cure, but the patient must have faith in his surgeon and be prepared to submit to long-continued watching even when much improved; if the sufferer runs about from one doctor to another his fate is sealed, as he gives neither himself nor his surgeon a chance.

Palliative
treatment

In all stages of ulceration, I have great confidence in the efficacy of rest in the recumbent position, and in a wholly, or nearly, fluid diet, and I consider milk should be the essential element in such a diet. I could relate many cases where I have really cured the patients with very little medication, occasional slight applications of a caustic solution, the exhibition of bismuth and morphia, and a gentle regulation of the bowels having fulfilled all the indications. These patients, confined to the sofa, and fed almost entirely on milk, often improve in general health and gain weight. If cod-liver oil or maltine can be taken I prescribe it as an aid to nutrition, but it must be taken only in small doses.

When the ulceration is deep, and contraction has commenced, the disease is much more serious, and a very doubtful prognosis should be given; still in all cases a good deal may be done, and hope may be instilled, if only the patient will give up everything to treatment for a more or less

lengthened period. If patients walk about, stand, sit, and attempt to continue their business transactions, treatment is nearly always rendered inefficacious; one indiscretion may render nugatory a week's labour. In these cases, therefore, rest is even more important than in ulceration in the earliest stage.

Often the ulceration induces such an irritable condition

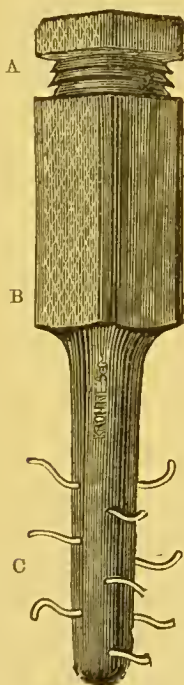


FIG. 41.--IMPROVED AMERICAN OINTMENT INTRODUCER.

The screw A being removed, the box B is to be filled with the ointment. On introducing the instrument into the rectum, and turning the screw, the ointment passes out of the apertures, as shown at C.



FIG. 42.

of the rectum that nothing will be retained, neither any injection, suppository, nor ointment; directly anything is introduced, uncontrollable spasmodic expulsive efforts are set up, and may continue long after the offending matter is rejected; thus great pain is suffered and the part itself

damaged. I have found that bismuth and charcoal taken internally will generally soon overcome this excessive irritability. Subnitrate of bismuth may also be tried on the mucous membrane itself, by means of an insufflator (diagram 42) ; this continuously used may soothe the rectum and relieve pain. As a rule I prefer ointments to suppositories or injections. The little instrument (diagram 41) obviates all difficulties of introduction, and I am sure irritates less than other methods of medication ; all kinds of sedatives, opiates, and astringents may in turn be tried. I am very fond of the following formula, and have seen it most efficacious :—

R Bismuth. subnit.	. . . . .	ʒij
Hyd. subchlor.	. . . . .	ʒij
Morph. acet.	. . . . .	gr. ij
Glycerine	. . . . .	ʒij
Vaseline	. . . . .	ʒj—M.

This is a very sedative application, and sores seem to be benefited by it speedily. Subacetate of lead, belladonna and opium, will be found serviceable ; all sorts of astringents may be employed—rhatany, friar's balsam, zinc, the permanganate of potash, copper, iron, iodoform, nitrate of silver, &c. The last, carefully used in not too strong solution, is one of the most admirable applications, often inducing in an ulcer a healthy appearance, and causing granulation. The tartrate of iron I also employ for the same purpose. Fuming nitric acid or strong carbolic or chromic acids applied under certain conditions, are potent remedies ; they often allay pain and start healing processes afresh, but they are double-edged weapons and must be used with great discretion, and with a distinct object in view.

R Cocaine	. . . . .	gr. xvij
Lanoline	. . . . .	ʒss

I have found greatly allay irritation and pain in these cases.

Tubercular

When the ulceration is tubercular, all treatment is extremely unsatisfactory, but by attention to the above details patients may be greatly relieved. When, however, the ulceration becomes exceedingly bad, as a last resource to rid them of the pain and incessant diarrhœa, inguinal

colotomy — as presently to be described—may be performed.

In dysenteric ulceration involving the rectum, I have found great benefit derived from a combination of the above-described treatment with the internal administration of large doses of Pulv. ipecac. co. and copious injection of

Argent. nitratis	.	.	.	.	gr. xx to xl
Aquam	.	.	.	.	ad Oijj

which is so strongly recommended and found efficacious by Dr. Stephen Mackenzie, of the London Hospital.

Syphilitic ulceration requires in its early stages a thorough course of mercury ; but when it is of a tertiary variety, large doses of iodide of potassium and tonics, with changes of air, afford the only hope of improvement. But in bad cases even these may fail. The baths at Aix-la-Chapelle are to be recommended.

CHAPTER XXII.

STRICTURE OF THE RECTUM WITH OR WITHOUT ULCERATION.

Stricture with Ulceration.

Stricture
with ulcer-
ation

ALL the different kinds of ulceration mentioned in the preceding chapter may, after a time, result in stricture; for as the disease extends, infiltration and thickening of the submucous and muscular tissues takes place, and there is consequent diminution of the calibre of the bowel, so that real stricture of various forms supervenes. Coincident with all this there results a gradual loss of the contractile power of the rectum, and almost complete immobility, so that the lower part of the gut is converted into a passive tube through which the fæces, if fluid, trickle; but, if solid, stick fast until pushed through by fresh formations above them. Invariably also there is loss of power in the sphincters. When diarrhœa is present the patient has little or no control over his motions. Usually by this time abscesses have formed, or are in process of formation, and, these breaking, soon become fistulæ. I have seen persons with as many as eight external orifices, some situated three inches or more from the anus.

These fistulous passages pass up the bowel opening into the ulceration, most frequently below but sometimes above the seat of constriction. I have seen, for years past, numerous cases of ulceration with stricture result from operations upon the rectum. This condition usually takes place shortly after the operation, and is manifestly due to it.

Stricture without Ulceration.

Stricture
without
ulceration

Stricture of the rectum without ulceration is a somewhat uncommon affection. We have seen how stricture takes place after, or in conjunction with, ulceration. The

thickening of the tissues and the contractions which result from the attempts at repair must narrow the canal, but it is not so easy to see how or why a stricture should occur *per se*. The rectum is a tolerably large tube (not like the urethra, where a very little deposit is sufficient to nearly block up the passage), and a considerable thickening might take place without causing any great obstruction.

We may, perhaps, suppose that inflammation of the submucous tissue produces a deposition, and, besides this, or resulting from this, there is spasm. I am sure this is often the case; I have seen strictures of the rectum so tight that I could not get the end of my little finger into them, but when the patients were well under the influence of chloroform I have been able to pass one or two fingers through easily

Inflamma-
tion as a
cause

How inflammation and thickening are set up in the connective tissue of the bowel it is difficult to say. It may be that straining to evacuate the contents of the bowel forces down the upper part of the rectum into the lower, thus causing an intussusception, and bringing the part within the grasp of the sphincter muscles, and I have often thought that this condition may be the starting-point of the irritation.

Possibly, also, inflammation may be induced by the passage of very dry and hardened fæces, though doubtless this condition may obtain for years—as it often does in old people—without producing stricture.

I have seen one case in which the frequent, and perhaps rather rough, use of an enema-pipe produced a stricture. This occurred in an elderly lady who had for years given herself an injection daily. She did not at first suffer from constipation, but she had been recommended an enema, and at last she could not get an action without it. I thought in this instance it was not improbable that the passage of the bone-tube had been the exciting cause of inflammatory thickening of the bowel.

It may perhaps be said that I have *assumed* inflammation to be the cause of the exudation into the wall of the bowel. I must confess that I have, for I have rarely been able to

detect decided symptoms of inflammation of the rectum preceding stricture. I have constantly asked patients whether they have at any time suffered from pain, sensation of burning, diarrhœa, dysentery, or discharge of matter from the bowel, and the reply has most usually been in the negative. On the other hand, I have seen cases of long-continued proctitis, especially in aged people, not followed by stricture.

Pressure of
child's
head dur-
ing labour

I have in some few cases had a suspicion that the long-continued pressure of the child's head in labour has been the exciting cause, bruising of the bowel having perhaps taken place.

Spasms

A stricture of the rectum resulting entirely from muscular spasm is what I am very much disinclined to believe in. I do not deny that such a condition may be found, but to me it appears to be very improbable, and I feel confident that in many of the supposed spasmodic strictures there is really no constriction at all. The operator has been misled by the bougie catching in the fold of the gut or against the promontory of the sacrum. If you are in doubt about the existence of a stricture, you should use a long and very elastic enema-tube and inject fluid as you pass it, so as to distend the gut and remove any intussusception of the upper part of the rectum. This condition, I think, has often been mistaken for stricture, as, unless the bougie goes *directly* into the *aperture* of the descended portion of gut, it gets into the sulcus at the side, which is a *cul-de-sac*, and the instrument cannot be made to pass. I have satisfied myself on several occasions of the existence of this source of error.

Congenital
cause

I have seen in young persons a narrowness of the lower part of the rectum for some inches (diagram 43), and in others a semi-circular or annular band (diagram 44), which feels to the touch as though the bowel were encircled by a cord. To these I would give the name of congenital stricture, as they appear to be due to an arrest in the development of the lower part of the rectum. Fortunately they are of rare occurrence, and generally exist in those patients who probably have just escaped having a congenital imperforate rectum.

Any hard tumours, as an enchondroma or exostosis growing in the pelvis, may press upon the rectum and so give rise to stricture, although there may not be any actual alteration in the walls of the gut. External cause

The coarse symptoms of stricture—viz. straining and difficulty in discharging the motions—have been already Symptoms

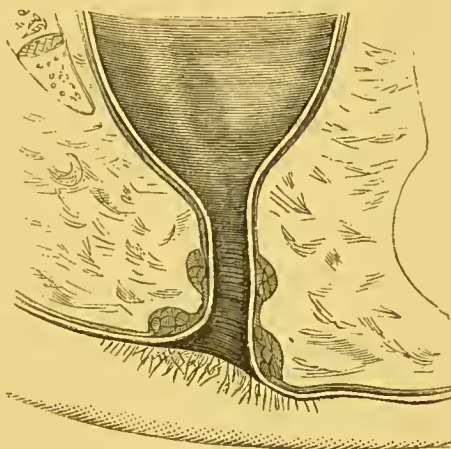


FIG. 43.

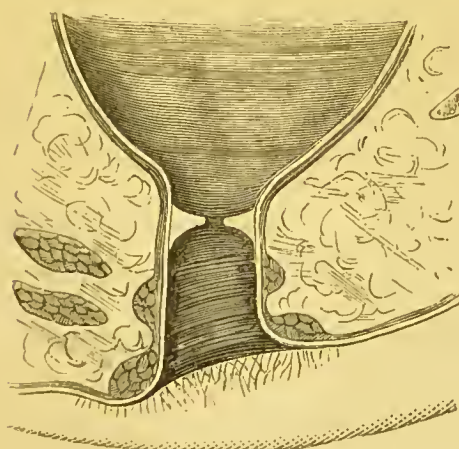


FIG. 44.



described. It is stated in some works that the stools are thin, long, and pipe-like. According to my experience this is not usually the case in true stricture; spasm of the sphincter, enlarged prostate gland, and tumours of the pelvis, much more frequently give rise to flattened and thin motions. The most characteristic feature in my opinion is

the passage of numerous very small broken pieces; the fæces having no actual form, and looseness often alternating with this lumpy condition. The discharge in simple stricture is like the white of an unboiled egg, or a jelly-fish, and is passed when the bowels first act. There is no coffee-ground-looking discharge so constantly seen in ulceration, nor is there the morning diarrhoea which we get in that complaint. There is very rarely any pain experienced in the bowel itself, the symptoms are generally referred more or less to distant parts, notably the penis, perineum, bottom of the back, the thighs, beneath the buttocks, and occasionally the stomach. Fortunately strictures of the lower bowel are generally within reach and sight, but occasionally they are found high up in the sigmoid flexure, or still more distant from the anus. In these cases it becomes a matter of great importance to ascertain the situation of the obstruction, but it is a question I shall not enter upon here.

Examina-
tion

For some years past, in exploring the rectum for stricture I have used vulcanite balls of different sizes, mounted on pewter stems with flattened handles (see p. 10); they are easily bent into any form, they will even bend in the bowel, and by their use, as in exploring the urethra, you may make certain of detecting a stricture. For when they pass, or on gently withdrawing them, the ball is felt to come suddenly, and perhaps with some difficulty, through the constriction. Its length also can be approximately measured.

Treatment

In considering the treatment of stricture with or without ulceration, it must be borne in mind that if ulceration exists with stricture, it must be treated as described in the preceding chapter, but at the same time the stricture should be dealt with by one of the following methods.

With
ulceration
Bougies

When the least stricture exists, with ulceration, bougies may be always employed, but it must be remembered that, to do any good, the greatest gentleness must be practised by the surgeon; indeed, pain ought not to be caused, although considerable discomfort cannot, in most cases, be avoided. A bougie of too large a size should never be employed; no

greater mistake can be made than to suppose that the larger the bougie you can get in the better; keep below the size that can be well borne rather than at all above it; in the one case good may ensue, in the other, irritation and retrogression are sure to take place. Never give a patient an ordinary bougie to use for himself, if the stricture be more than two inches from the anus. I have now seen two deaths occur from patients thrusting the instrument through the wall of the rectum; peritonitis immediately set in, and they expired in great agony. Occasionally, when the constriction is only about an inch or an inch and a-half from the anus, I let the patient have a short instrument to pass and wear at night, if its introduction can be accomplished without any severe pain. I employ vulcanite tubes furnished with a collar, to which tapes are fastened to keep them in the bowel, and at the same time prevent them escaping *into* the rectum, an accident I have more than once seen occur; in one case, indeed, a full-sized long bougie entirely disappeared, and could not be reached by the finger in the rectum; its distal end could be felt in the transverse colon; fortunately, after a few trials, I was able to seize it with a pair of long bullet-forceps, and withdrew it from the bowel, the patient, as may well be imagined, being not a little frightened.

When strictures are slight, near the anus, and not very long, but annular, a division in a few places with the knife, followed by judicious treatment with the tubes, may be very beneficial and even curative. The division I usually make at four points, and I take care just to cut through the induration, and reach the healthy tissues beneath, but not to go deeper; the bowel should be filled with well-oiled lint or wool for twenty-four hours, and then the tube introduced and worn, only taking it out for the bowels to act, and to wash out the rectum with some antiseptic solution. I prefer Condyl's fluid, very dilute, or thymol. I am of opinion that carbolic acid is always too irritant, if strong enough to be of any service.

Some years ago a young gentleman, æt. 19, came to me with an annular congenital stricture about an inch from

the anus ; division as I have described, the use of the tube, and general treatment cured him in six months, and he has continued quite well to this day. I have seen several such cases.

Gentle as
contrasted
with forcible
dilatation

In cases of stricture when there is great spasm with a small amount of organic disease, much good may be done by the use of bougies. Before passing the bougie, it is well to inject into the bowel some sedative, as opium or belladonna with oil, and to use a stiff lubricant on the bougie (such as blue ointment) ; if the instrument cannot be quickly passed, it is better not to persevere, as irritation will be set up and damage done ; once set up spasm and all your endeavours may be frustrated ; the stricture must, as it were, be surprised. I do not like any forcible dilatation in these cases ; you may tear or split the stricture with Todd's dilator, but you are more likely to get ulceration than permanent benefit to the stricture. On the same principle I should not cut even in the slightest degree any constriction where no ulceration existed, save in cases I will describe. If the stricture is high up, the use of Todd's dilator is dangerous. I have seen profuse hæmorrhage follow its use, and the bowel might be torn to the injury of the peritoneum, especially in women.

In these cases I am also of opinion, that retaining a bougie or tube is not usually advantageous ; you may produce ulceration, and if this should be done you will perhaps irretrievably damage your patient. Gentle dilatation, very gradually increasing the size of the instrument, is the only safe treatment. The conical bougie is a good form, as gentle pressure induces this to enter the stricture more easily ; but you should never cause pain, and you may be sure that if blood or mucus passes after your manipulation, your patient will have little to thank you for.

I used to think that twice in the week, or at most three times, was as often as the instrument ought to be used ; but in obstinate cases its daily use has, in my more recent experience, been followed by greater permanent good. Still, in this matter every case must be judged on its own merits, bearing in mind the axiom, ' Never irritate.'

Annular strictures are so resilient that, even if dilated to their fullest extent, they very soon return to their previous state of contraction. It is in these alone that I consider division advisable, but the incisions should be only superficial, and dilatation should be commenced on the day following the operation.

When a stricture is well dilated the patient generally experiences the greatest amount of relief; there is no more straining at stool; comfortable good-sized motions are passed, and many anomalous symptoms vanish. One drawback is the rapidity with which all strictures are apt to return; the relief afforded is even much less durable than that obtained in stricture of the urethra; the patient should therefore be warned never to be long without having the bougie passed, and certainly directly any of his old symptoms recur, at once to obtain treatment. If this advice be acted upon, but little fear need be entertained of permanent dangerous relapse.

The only treatment likely to be of any use in bad Rectotomy ulceration, stricture, and fistula, is *linear rectotomy*, as first practised by Professor Verneuil.

I have performed this operation many times, but always with the knife, never with the *écraseur* and galvanic cautery as he has recommended. The whole stricture must be divided from its upper edge down to the coccyx, and through its entire depth, the essence of the operation being that all the coats of the bowel, sound or otherwise, including the sphincters, should be divided from the upper level of the stricture downwards. Thus a deep drain is made, from which all discharges freely flow, and as it heals up, the ulceration ceases, and the stricture is sometimes cured. The patient being in lithotomy position, what I do is simply to pass my finger through the stricture; I then introduce a long straight knife along my finger, and when the point is fully above the stricture I cut firmly down right through it in its whole depth, even to the sacrum if necessary, and bring the knife out at the tip of the coccyx. If you keep the median line the bleeding is but trifling, and the whole of the diseased structure will have been cut through.

So rapidly beneficial is this operation, that in forty-eight hours I have often seen night-sweats arrested, and a patient who seemed about to die rally and eat and drink, and get well from that moment; morbid discharges, instead of being absorbed, run out, and the patient is not poisoned. The wound should be well syringed, and the parts kept perfectly clean. I always use dry absorbent cotton-wadding as the dressing, and I only want my patient washed at most twice in the day; too frequent use of any fluid, carbolised or not, soddens and weakens the granulations; if you want these cases to do well, dry dressings are those I advise you to employ.

Many of these patients have done well, and I have had permanent cures; but others have failed, and I have seen a return after even three or four years. In the after-treatment I often place a tube in the wound, keeping it in at night, which tends to prevent contraction.

There are no maladies more baffling to the surgeon than ulcerations and strictures of the rectum, and, as I have before said, they are often quite incurable, and nothing affords relief save colotomy. This operation, however, though doubtless it may prolong life, should not be resorted to without due consideration.

Colotomy

The question as to whether inguinal or lumbar colotomy is the better operation, and the methods of performing them, will be fully discussed in their respective chapters.

Recapitulation

To sum up, all simple strictures should be treated by gradual dilatation with bougies; if they are very resilient slight incisions may be made through the stricture. Strictures complicated by ulceration, at first should be treated by bougies; but this failing, linear rectotomy affords the best hope of relief.

In extremely severe cases of stricture and ulceration combined with fistula, in which linear rectotomy has been of no avail, colotomy should be performed.

CHAPTER XXIII.

ONE HUNDRED CASES OF ULCERATION AND OF STRICTURE OF THE RECTUM, WITH A DISCUSSION AS TO THE RELATIVE FREQUENCY OF THE SYPHILITIC AND OTHER CAUSES OF THESE DISEASES.

THE following table of seventy cases which have been under my care at St. Mark's Hospital exhibits, I think, many points worthy of consideration. I have collected these cases of stricture and ulceration, and described them separately in this chapter, so that they should not in any way interfere with the question of treatment referred to in the two preceding chapters.

Table of cases

No.	Age	Sex	Constitutional syphilis or not	Stricture and ulceration, where found	Complications and observations
1	27	F.	Yes, tertiary	Stricture 2 inches up ; ulceration above and below	Fistula ; mucous tubercles : primary infection 5 years since.
2	45	F.	Yes, nodes	Ulceration from anus ; stricture 2 inches	Sores on labia : fistula ; primary symptoms 5 years ago.
3	39	F.	Severe cons. syphilis	Stricture impermeable high up	Recto-vaginal fistula ; colotomy ; lived 18 months.
4	30	F.	No history or appearance	Severe ulceration and stricture 2 inches from anus	No complication ; outside parts normal.
5	20	F.	No syphilis ; struma	Small ulcer ; stricture $1\frac{1}{2}$ inch ; ulceration above stricture	Outward parts quite normal ; hymen present ; under treatment 8 years ; died, exhaustion.
6	26	F.	Cons. syph. ; nodes on forehead	Stricture $1\frac{1}{2}$ inch ; hypertrophy of nymphæ	Ulceration very high ; colotomy ; lived over 3 years.
7	36	F.	No history of syphilis	Stricture 2 inches ; ulceration high up	Fistulae in all directions, from which great induration ; colotomy ; success.

No.	Age	Sex	Constitutional syphilis or not	Stricture and ulceration, where found	Complications and observations
8	44	F.	Cons. syph. (8 years)	Stricture 3 inches long $\frac{1}{2}$ inch from anus	No complications; colotomy successful.
9	37	F.	No symptoms of syph. nor history	Extensive ulceration; two strictures high up	Attempted colotomy (right side); death 56 hours.
10	25	F.	Syphilis well-marked	Stricture $1\frac{1}{2}$ inch from anus; ulceration above and below; hardness	Large flaps of skin outside, and fistula.
11	21	F.	Ditto	Stricture 2 inches from anus; severe ulceration	Recto-vaginal fistula; syphilis 7 years at least.
12	28	F.	Probably. Sore-throat now	Stricture just within reach of finger; no ulceration between anus and stricture	Recto-vaginal fistula; anus not affected.
13	34	F.	No symptoms or history of syphilis	Stricture two inches; much ulceration	Fistula; no disease of anus; came on as abscess.
14	28	F.	Cons. syph.	Stricture $1\frac{1}{2}$ inch from anus; ulceration above	Anus normal: syphilis 12 years; had treatment.
15	37	F.	No symptoms or history	Stricture $2\frac{1}{2}$ inches; bad ulceration above and below stricture	Fistula both sides of anus; large flaps of hypertrophic skin; discharging.
16	36	F.	No symptoms or history	Stricture $1\frac{1}{2}$ inch; ulceration near anus	Large fibroid polypus; easy cure.
17	34	F.	Cons. syph.	Stricture $1\frac{1}{2}$ inch; ulceration deep above and below stricture	Dorsal fistula; anus normal; syphilis 18 mos.; rash scaly, and ulceration on tongue.
18	29	F.	None	Simple stricture 2 inches from anus: much induration but no ulceration	No internal complication; division and lasting cure.
19	40	F.	Cons. syph.	Ulceration commencing 1 inch above anus, stricture 2 inches	Anus natural; good result.
20	20	F.	Ditto	Tight stricture 2 inches; ulceration	Mucous tubercles; hypertrophied nymphae.
21	30	F.	No history of syph.	Very little stricture 2 inches; superficial ulceration	Verrucae; no sores; speedy cure.
22	42	F.	Syphilis well-marked	Stricture 1 inch up; ulceration severe and deep	Fistula; great induration and swollen lumps around anus.
23	28	F.	None	Annular cord-like stricture 2 inches; ulceration near anus	No complication; cure.
24	39	F.	Cons. syph.	Stricture $1\frac{1}{2}$ inch from anus; not much ulceration	Large superficial sore in perineum, extending into anus; fistula.

No.	Age	Sex	Constitutional syphilis or not	Stricture and ulceration, where found	Complications and observations
25	24	F.	None	Stricture 2 inches dense and long: ulceration severe	Recto-vaginal fistula, commenced after childbirth; colotomy, success.
26	53	F.	Cons. syph.	Stricture tight; no ulceration above or below	Fistula in ano; syphilis 5 years.
27	27	F.	None	Stricture just inside anus; no ulceration; cure by incision and dilatation	No complication.
28	25	F.	Cons. syph.	Stricture 2 inches from anus; ulceration below and above	Syphilitic rash and sores; 9 years of syphilis.
29	33	F.	None	Stricture 2 inches from anus; ulceration severe	Fistula in ano; been operated upon several times.
30	22	F.	None	Stricture annular, $1\frac{1}{2}$ inches up; ulceration severe	Procidentia recti; a curious case, it comes through the contraction.
31	28	F.	Cons. syph.	Stricture severe and long, commencing 1 inch from anus; deep and extensive ulceration	Several large external growths and three fistulous sinuses.
32	31	F.	None	Stricture $1\frac{1}{2}$ inch; much soft ulceration	Outward parts normal; died; gradual exhaustion.
33	50	F.	None	Stricture 2 inches up; ulceration above and below	No complication.
34	37	F.	Cons. syph.	Stricture $\frac{1}{2}$ inch from anus; ulceration high up	Rupia, fistula in ano; 10 years syphilis.
35	22	F.	None	Stricture $2\frac{1}{2}$ inches up; ulceration above and below	Hæmorrhoids.
36	13	F.	None	Stricture about 2 inches up; little ulceration	Fissure and polypus.
37	28	F.	Cons. syph.	Stricture 2 inches up; ulceration above and below	No complication: 10 years syphilis
38	25	F.	Ditto	Stricture $1\frac{1}{2}$ inches up; ulceration above and below	Fistula through labia and into anus; growths.
39	33	F.	Doubtful: no history or symptoms	Stricture just within reach; ulceration below	Fistula in ano; recto-vaginal fistula.
40	37	F.	Cons. syph.	Stricture 2 inches; severe ulceration	Fistula; growths; colotomy; success.
41	27	F.	None	Stricture annular, 3 inches up; severe ulceration	None; cured by incision and dilatation.

No.	Age	Sex	Constitutional syphilis or not	Stricture and ulceration, where found	Complications and observations
42	37	F.	Cons. syph.	Stricture $1\frac{1}{2}$ inch up; very severe ulceration	Huge outside growths and labial fistula; colotomy; success.
43	27	F.	None	Stricture 1 inch up; superficial ulceration	None, cured by division and dilatation.
44	30	F.	Cons. syph.	Stricture 2 inches up; ulceration slight	Recto-vaginal fistula.
45	26	F.	None	Stricture $1\frac{1}{2}$ inch up; severe, deep ulceration	Club-shaped growths outside around anus.
46	25	F.	Cons. syph.	Stricture 2 inches up; ulceration above and below	Fistula in ano.
47	35	F.	None	Ulceration so that the os and cervix uteri came through into the rectum	The uterus could not be returned; she menstruated through the rectum.
48	22	F.	Cons. syph.	Impermeable stricture 2 inches up	Constipation 3 weeks; colotomy; success.
49	30	F.	Very doubtful	Stricture 2 inches up; not much ulceration	None
50	30	F.	Cons. syph.	Stricture high up; ulceration severe	Fistula and outside growths; syphilis 5 or 6 years.
51	25	F.	None	Stricture 2 inches; ulceration slight	Internal fistula: burrowing up under stricture.
52	24	F.	Cons. syph.	Stricture 1 inch up; ulceration severe	Fistula; growths; rupial rash.
53	28	F.	Ditto	Stricture 2 inches up; ulceration only above the stricture	Fistula; very recent stricture, only noticed 6 months; indurated sores on nympha.
54	18	F.	Ditto	Stricture $1\frac{1}{2}$ inch; no ulceration at all	Verruæ; labial abscess.
55	25	F.	Ditto	Stricture $2\frac{1}{2}$ inches up; ulceration severe above and below	Hæmorrhoids and fistula.
56	32	F.	Ditto	Stricture very high, only just to be felt; ulceration very deep	Fistula, several sinuses; colotomy; success.
57	22	F.	None	Stricture $1\frac{1}{2}$ inch up; very little ulceration	Disease of uterus.
58	29	F.	None	Stricture 3 inches up; ulceration below slight	Fistula and fissure.
59	62	F.	None	Stricture 1 inch up; ulceration above	Four fistulæ around anus, one perforating the vaginal wall.
60	47	F.	None	Stricture only just to be felt; ulceration below	Fistula in ano; complete opening below stricture.
61	50	M.	Cons. syph.	Stricture 3 inches from anus; much ulceration	Numerous fistulæ; great debility; went home and died.

No.	Age	Sex	Constitutional syphilis or not	Stricture and ulceration, where found	Complications and observations
62	53	M.	Ditto	Stricture two inches above anus; ulceration from anus	Several hard ulcerated growths; very badly syphilised, 5 years.
63	40	M.	None	Stricture 3 inches; ulceration all around rectum	Bad fistula, faecal matter passing through; colotomy (alive 8 years after operation).
64	34	M.	Cons. syph.	Stricture 1 inch; ulceration above and below	Ulceration down to anus; fistula in ano.
65	26	M.	Ditto	Stricture $1\frac{1}{2}$ inch; ulceration severe above	Stricture almost impassable; colotomy (alive 10 years after operation).
66	38	M.	Ditto	Stricture 2 inches; ulceration severe	Two fistulous sinuses; bad condition.
67	29	M.	None	Stricture 1 inch, annular; slight ulceration	Phthisical; anus lost all power.
68	19	M.	Cons. syph.	No stricture; all sloughed away	Phthisis combined with syphilis had played havoc with him.
69	80	M.	None	Stricture extending from anus 3 inches up, very hard	Thought to be cancer, but dilatation and small doses of mercury cured him.
70	50	M.	None	Annular stricture 2 inches up; not severe ulceration	Anus normal; speedy cure by division and dilatation.

We may briefly call attention to some important points in the above table. In seventy patients, sixty were females and ten males, a large predominance of the former, but not so great as has been given by some authors. Now, you will find on examining the table that thirty-five had suffered from undeniable constitutional syphilis, while five had some symptoms, but not decisive, of ever having had the disease, so I think this number should be deducted from the whole number seventy, before we consider the statistics of the rest, viz. sixty-five, and we find thirty-five were most undoubtedly syphilitic, and thirty as undoubtedly never had contracted syphilis, and many never any venereal disease.

Syphilis as
a cause.

The males, though small in number, are worthy of a moment's consideration; of the ten males, six had suffered from some form of syphilis; but four had not, and there

was great probability that they had not been affected by any syphilis : they denied any venereal taint, and I think from the way they spoke, and the desire they had not to deceive me (as I made it a matter of great importance to them as regards treatment that they should tell me the truth), I felt bound to believe them.

Ten of my cases were subjected to colotomy in the lumbar region, and for the most part did well, and I believe several are still alive. Two of the women have married since the operation.

Descrip-
tion of
special
cases

Of the 30 patients who had never been syphilised, it was possible that many more, but highly probable that 13, had never had any venereal affection whatever. Inoculation in all these cases proved abortive, either there being no result, or only a small evanescent pimple appearing.

The cases here mentioned are :—

No. 5. Observed for eight years, died of exhaustion ; would not submit to colotomy.

No. 7. Colotomy performed with success, all ulcers healing ; this patient has been more than seven years in good health.

No. 16. Had large fibroid polypus with stricture and ulceration ; removal of polypus and dilatation with incision effected a cure.

No. 18. Division effected a permanent cure.

No. 25. Colotomy effected cure, patient watched for years and found well ; eventually, all the strictures being cured, the wound in the loin was closed.

No. 29. Division of fistula and dilatation of stricture effected a cure.

No. 36. Fissure and polypus, with ulceration and stricture ; operation, subsequent dilatation ; cured, some months after found well.

No. 43. Stricture and ulceration cured by incision and dilatation.

No. 57. Disease of uterus, enlargement of fundus, retroversion, Hodge, dilatation, cure.

No. 59. Stricture and fistula, ulceration, careful division of fistula and stricture, cure permanent.

No. 67. Male, annular stricture and ulceration, phthisis, relief.

No. 69. Stricture very long and hard, gradual dilatation of stricture, cure, and no relapse.

No. 70. Annular stricture high up, incision and dilatation of stricture, cure.

With regard to inoculation, I performed it on many patients in whom severe constitutional symptoms of syphilis with outside growths existed, and never got a true chancre as the result; I noticed many small pimples and sores which healed in a few days, but never a typical soft chancre; I therefore certainly did not inoculate from a soft sore.

I know many of these patients died after years of treatment, numbers of them being admitted and readmitted into the hospital. They die either of some intervening acute disease, obstruction in the bowel, or gradually undermined and broken-down health; the workhouse infirmary often sees their end, which may be very rapid. In sixteen cases I performed Verneuil's operation of linear rectotomy. Treatment

Many cases were treated by dilatation, assisted, in some instances, by small incisions; great care and pains are required in the treatment by dilatation, but it may be satisfactory, and I will relate some cases in which it was eminently so. Stricture of the rectum, however, is a disease infinitely more uncertain, more prone to relapse, and more difficult to treat than stricture of the urethra. In some few cases, immense good resulted from the administration of iodide of potassium and mercury; but, on the other hand, often when it was expected to benefit, no curative result followed. On the whole, therefore, I place but little faith in specifics.

I think it is very advantageous to compare the results of our hospital with our private practice, so different are the patients in many respects—their habits, the food they take, the houses they inhabit, their cleanliness, sobriety, the comparatively early stage of the malady at which they seek good advice—that one often finds the success in private practice so much greater as to be really astonishing. I shall

proceed as shortly as I can, consistent with clearness, to give the heads of cases treated in private by me during some years. Time prevents my pushing my researches further back than the beginning of 1876.

Private
cases ;
women

CASE 1.—Female, married, 37. No children, no miscarriages; stricture about three inches up the rectum; ulceration both below and above it; no history of syphilis at all; never had any sores nor discharge more than a little whites; has no pain except such as arises from straining and frequent desire to visit the closet. The husband, perfectly willing to clear up the question, examined: Never had syphilis, but had gonorrhœa, but not since his marriage eight years ago; never had any soft sore or enlarged gland in the groin. No scars on penis or in groin. The disease his wife suffered from was complained of about five years ago; has had advice and bougies passed. I thought it advisable to divide the stricture in several places, and kept in a tube at night. Various plans of treatment were employed, with the result of a cure in nine months; good reason to believe she continues well.

CASE 2.—Female, married, 27. Had children and miscarriages; at her last two confinements children alive and appear well. Husband contracted syphilis since his marriage, secondaries followed, and his wife, then *enceinte*, became syphilitic; child died a few weeks after birth; it seemed healthy but feeble. She was treated then by her medical man for secondary syphilis. Ulceration and stricture two inches from anus; no symptoms of syphilis now. She suffers much from the bowel. Careful dilatation and treatment of ulceration made her quite comfortable, but I feel sure to this day she is not quite well. Seen with Dr. Smith, of Blackfriars.

CASE 3.—Female, married, 30. Constitutional syphilis, acquired from the husband. No miscarriages, but two children had syphilis; were treated and are now living. *Examination*.—Almost impassable stricturo, obstruction so great that I performed colotomy, the lato Mr. T. Carr Jackson assisting me; result good, but continued discharge from the rectum and the stricture very tight. I have been seeing this patient occasionally for years. The husband, a dissipated man, has had all kinds of venereal disorders.

CASE 4.—Female, married, 48. No constitutional syphilis, and has never had any symptoms. Husband healthy, and says never had any venereal affection of any kind; married very young, his wife being not nineteen. Eldest child eighteen, and all family healthy. *Examination*.—Stricturo and some ulceration two and a-half inches from anus good deal of pain and straining. Slight division and careful dilatation effected a cure in five months. I am informed that this patient has continued well since.

CASE 5.—Female, married, 38. No symptoms of constitutional syphilis; has healthy children; very painful annular stricture near anus; some swollen flaps of skin extrude; ulceration extending for an inch and a-half upwards. The husband confesses to syphilis, but considered himself as quite well years before his marriage has no symptoms now; division of the stricture; blue ointment with opium to ulceration and careful dilatation cured her in about two years. I have not heard of any relapse.

CASE 6.—Female, married, 37. Stricture and ulceration rather severe; stricture one and a-half inches from anus; suffers much; has dimness of vision which I found to be caused by iritis; has syphilitic rash; rupial; is very cachectic and feeble; one child nine years old quite healthy. Her husband was under my care about twelve years ago for indurated sore; moderate mercurial treatment for six months; all symptoms gone, and left off medicine. Seen again after nine months with secondary rash, rather scaly, and sore-throat; mercurial treatment again, hydr. cum cret. at bedtime, and blue ointment between the toes; very soon well, and would not take any more medicine. Came to me four years after to consult me about the propriety of marrying. On careful examination I could find no evidence of syphilis, so thought he was justified in doing what he liked. He, soon after I saw him, married, and the only child, born fifteen months after marriage, was healthy, and has continued so. To return to the wife, three years after her marriage she had a rash and sore-throat. She was treated by her medical attendant with iodide of potassium, and she quickly recovered; the husband during this time had flying attacks of syphilis, for which he saw me two or three times, but took by his own prescription iodide of potassium and sarsaparilla. This went on until the wife, having severe bowel symptoms, was sent to me. The treatment consisted of mercury and iron; the stricture was a little dilated, and she was sent to the sea-side; great improvement took place in general health, the iritis got rapidly well, and the stricture was much modified by gentle dilatation; the ulceration also healed in great measure, so that she suffered but little, and the bowels acted only about twice in the day. The husband denied any fresh infection since his marriage; slight crops of secondary character were frequent, and he on one occasion had an indurated crack at the orifice of the urethra. The wife eventually was quite cured. I have related the above somewhat in detail, as one has rarely so good an opportunity of watching such a case so long.

CASE 7.—Female, 36, married many years. Sent me by Dr. Playfair. Husband says never had syphilis; no symptoms in his wife. Stricture two and a-half inches from anus; slight ulceration; a very feeble woman; never any children; tendency to lung affection. Phthisis in family; has from soon after marriage suffered from inflammation of the uterus, and has now a fibroid in its posterior wall.

Has a very spasmodically contracted sphincter, and the stricture is long, so that one cannot feel the extent of it; despite all treatment this case went on to total obstruction, and colotomy was performed. The case did well; duration of stricture at least ten years.

CASE 8.—Female, married, æt. 45, no children. No history at any time of syphilis. Sent me by the late Mr. Burton, of Blackheath. Stricture and slight ulceration three inches up from anus; no symptom of present or past syphilis in patient or husband; great relief in six months; treatment by dilatation and mercurial ointment. This patient remains well.

CASE 9.—Female, æt. 50. This lady came from Philadelphia to be under my care. History very doubtful, but has had many and healthy children, and several difficult labours; no deaths; no miscarriages; children nearly grown up. Very bad stricture and ulceration; linear rectotomy in the median line; tubes kept in for weeks; eventually a very perfect cure; stayed six months in England, and went away without any tendency to contraction. I heard from this patient a few years after she left my care; she continued perfectly well.

CASE 10.—Female, married, æt. 37. No family, the wife of a medical man. Stricture near anus, ulceration, swollen tags of skin, ichorous discharge. The husband had a hard sore and secondary symptoms not long before marriage, and knew he had affected his wife, whom he treated from time to time. Now, after an interval of about seven years, the first symptom appeared in his wife, the husband at the same time showing mucous sores on the lip and anus. Treated for a long time by specifics and local treatment, including division of the stricture, but only with relief, maintained by constantly wearing a tube. No permanent cure, I fear, will be effected.

CASE 11.—Female, married, æt. 29. Severe ulceration; stricture two inches up the rectum; recto-vaginal fistula. Husband, a dissipated man, confesses to have had syphilis and gonorrhœa many times. The wife had tertiary sores on legs; mucous papules; nodes on head; very cachectic and feeble. Small doses of mercury were given twice in the day, with iodide of potassium and arsenic with decoction of cinchona; good diet and fresh air soon restored her health, and attention was bestowed on the stricture; it was divided in several places very lightly and a tube worn, but the tenderness defeated all the treatment, she could not retain anything. Suppositories or sedative injections were at once returned and pain was increased. Her health again broke down, and as a last resource colotomy was performed, but she lived only three months; relieved from pain, but never rallied.

CASE 12.—Female, married, æt. 60 (widow). Stricture a little way up the bowel, one and a-half inches; slight ulceration. Has many children grown up healthy; only for a few years suffered discharge;

frequent going to stool and general decline of health. Sent me by Mr. Sloman, of Farnham. Division and dilatation of stricture; mercurial and opiate treatment of the ulceration; wearing a tube at night effected a great improvement; in fact, I think there is every reason to hope for a cure. I have since heard this lady is well.

CASE 13.—Female, unmarried, æt. 55. Sent me by the late Dr Lockhart Clarke. For many years has suffered from difficulty in the bowels. *Examination*.—Long and tight stricture two inches from anus; very little ulceration, but considerable roughness nearer the anus, evidently the scars of old ulceration; the index finger could be passed through the stricture after some pressure. The history of the past showed that she had suffered much in the rectum, pain, bleeding, discharge of mucus and constipation, alternating with diarrhœa. Had consulted many physicians, and taken enormous quantities of medicine, laxative and tonic; she had taken great care of herself, lying up much. Extreme caution in diet, living almost solely on fish, vegetables, and fruit. She says, on the whole, constitutionally she is better, but increasing difficulty in obtaining relief brought her to me. The case I considered one very amenable to treatment by dilatation and keeping in the tube at night. This I adopted, and in three months she was better than she had been for many years. This ulceration and stricture, I have no doubt from the history, arose from inflamed, and perhaps suppurating, hæmorrhoids, the submucous tissue got affected, and ulceration and stricture resulted. There was no appearance of any tuberculous tendency, and certainly no syphilis, acquired or hereditary. I cannot see why in many cases a similar condition may not result from constipation and inflammation.

CASE 14.—Female, married, æt. 34. Attended with Mr. Seymour Haden. Stricture for long time; seen by Mr. Haden one month ago, when the obstruction was almost total, and she had constant vomiting. Mr. Haden got a tube through and relieved the obstruction. No history of syphilis or struma in the patient or husband; the question of syphilis in my own mind was quite settled in the negative. I attended this patient for some time and she much improved. Her husband was a chemist, and with a little teaching became quite skilful in passing the bougie. I lost sight of the patient, and do not know the ultimate result. My opinion was that the cause of the stricture was very severe labours and long pressure of the child's head. It is not uncommon for women to connect their bowel trouble with a bad or instrumental labour. Although I should not consider this a common cause of ulceration and stricture, it ought not to be left out of our consideration.

CASE 15.—Female, unmarried, æt. 27. Seen by me in conjunction with Mr. Aikin, and afterwards with Sir James Paget. Had been operated upon for fistula, and ulceration followed, severe in character;

got better and worse. Brighton air did her so much service that a happy result was anticipated ; but, however, she fell back again. When I saw her with Mr. Aikin the sphincters were quite ulcerated away ; with great difficulty the finger could be got through a stricture two inches up the bowel. The history led me to conclude that the disease was tubercular ; I advised immediate colotomy. I did not see this patient until four months later, when she was much worse ; abscesses had formed in the groin, and a communication was established between the vagina and rectum ; her condition was so deplorable that an operation was undertaken only as a means of relief by turning aside the fæces. With the sanction of Sir James Paget and Mr. Aikin I performed colotomy. After the operation I pointed out that the ulceration could be detected from the aperture in loin by passing the finger towards the rectum. Her history from this period was, some temporary arrest of the ulceration, but this did not last long, and soon it could be seen on the bowel in the lumbar opening. Abscesses formed in all directions, and burst or were opened in several places, so that the interior of the pelvis could be seen. She died just three months after the operation. To a certain extent relief was obtained, but not so much as I think would have resulted had colotomy been earlier undertaken. The ulceration was serpiginous in character.

CASE 16.—Female, married, æt. 34, no children. Was seen by me in consultation with Dr. T. B. Crosby. She was suffering, and had been for years, from tertiary syphilis, necrosis in the tibiæ having taken place ; had not undergone anti-syphilitic treatment for lengthened periods. There was ulceration and tight stricture in the bowel ; the urethra was ulcerated through in nearly its whole length, so that incontinence of urine resulted ; some communication had taken place between the bowel and the bladder, as wind freely passed on her making water or on introducing a catheter. Treatment was undertaken by passing a bougie, keeping the bladder empty, and her constitutional powers were much improved by small doses of mercury and tonics. Result of treatment nugatory as regards the incontinence of urine.

CASE 17.—Female, married, æt. 47, no children. Seen with the late Mr. Theophilus Taylor. Syphilis undoubted, tertiary scars being present ; ulceration of rectum and stricturo ; very much discharge ; great pain, straining, and constant desire to go to stool ; constitution very much undermined. The stricturo was so tight that division was made in dorsal median line, and bougies soon after introduced. Tonics (iron and mercury in very small doses) were administered ; after long treatment great improvement took place. The wound healed and the ulceration was very slight, so that the discharge became almost *nil*, and was mucous rather than purulent. She was instructed to pass the bougie (very short one) herself ; she could safely do this, as the stricture was not very high up. When last seen was wonderfully improved,

but had incontinence of feces if at all fluid. Still, the comfort she had derived from treatment was most marked and satisfactory to her as well as to her medical attendants.

CASE 18.—Female, married, æt. 42. Three children, very healthy. Sent me by the late Dr. Herbert Davies. Suffered for a long time with constipation and straining at stool; no evacuation obtained without medicine or enemata; rather thin, but not unhealthy-looking; no miscarriages; no history or appearance of syphilis. *Examination*.—Found tight, annular stricture one and a-half inches from anus; ulceration below the stricture as well as slightly above; some swollen outside skin, not discharging. The stricture proved very dilatable, so the use of the bougie enlarged it much in about three weeks, and she was then more comfortable than she had been for years. The ulceration also got better by the use of a bismuth, morphia, and pitch ointment. In fact, so much better was this patient at the end of two months that she has not visited me since.

CASE 19.—Female, widow, æt. 59. Sent me by Mr. Pinching, of Gravesend. Long troubled with her bowels; never passes formed motions, always in small broken pieces with blood and slime on them; has been getting thinner, but says her health is fair, and if she was comfortable in her bowels would be quite well. *Examination*.—Stricture tight, *i.e.* could only get forefinger through, and this caused much pain; the edge of the stricture was ulcerated; many years ago had been operated on for piles at a London hospital; she was in poor circumstances then; from that day never had perfect comfort in the use of her bowels. I slightly divided the stricture and introduced bougies gradually increasing in size, and by the application of ointments the ulceration gradually got better, so that she could sleep all night with a bougie in the stricture. In three months she was quite well; no trace of stricture could be felt, but corrugations and roughness, showing the healing of the ulceration, remained. I saw this patient more than a year after the treatment, and she continued quite well. I have no doubt this stricture and ulceration was the result of the operation on the piles.

CASE 20.—Matilda G——. Female, married woman, 28 years of age. Some years ago she was a patient of mine with stricture and ulceration. She went on tolerably well, and continued so for about four years; she then began to suffer much; had constant pain and discharge from the bowels; she either had constipation or diarrhœa. There was entire incontinence of feces. The straining and bearing down were very distressing; her aspect was worn and sallow; she was not very emaciated; there was no evidence of syphilis or consumption. On examination a large, ragged, deep hole was seen instead of an anus; it was surrounded by swollen flaps of skin, two of which were perforated by fistulæ; the hole measured about two inches each way,

and there was not a vestige of sphincter muscle left. On introducing the finger into the bowel, it was found quite blocked up by contraction and thickening; only a very small aperture could be felt, but into this the end of the finger could not be passed. Chloroform being given, she strained down so violently that the strictured portion of the bowel was forced outside, so that the ulceration and stricture could be plainly seen. The aperture was not larger than a No. 10 male catheter. I saw this patient over and over again; she was always benefited by treatment, but not cured. At length she died.

Cases, in private practice, of ulceration and stricture in males.

Private
cases ;
men

CASE 1.—Male, æt. 23. In the army. Had a hard sore some three years back and was treated. After a time he suffered from pain on defæcation, and he went to a surgeon, who said he had a syphilitic sore and must be operated upon; but after the cutting the sore became worse, and he came to me. I found the sore unhealed and inflamed, and, suspecting more, I with difficulty passed my finger up the bowel, when I found that above the sore which had been divided, there was quite an inch of healthy mucous membrane forming a zone around the bowel, then some more ulceration in a zone an inch in width. He had no other sign of syphilis but a sore throat. Mercurial ointment, arsenic, and iron, with cod-liver oil, as he was weak and feeble, soon made an improvement. In a fortnight a bougie could be passed, and all healed in about eight weeks.

CASE 2.—Male, æt. 40, married. Had never had syphilis, but told a strange story—that, if he was affected, it arose from taking a Turkish bath. Very bad ulceration extended two inches up. Stricture was tight, and he had much pain, and got no relief unless he took large doses of purgatives. Linear rectotomy and twelve months' great care nearly cured him. I have not seen him during the year and a-half which has elapsed since the operation, but I have heard he is not well.

CASE 3.—Male, æt. 29, unmarried. Had syphilis, and was treated by Ricord, of Paris, for eighteen months, and thought himself quite well; had lost all rash and symptoms for months, and then discontinued his medicines. About six months after he experienced pain and straining on defæcation. As he was coming to England he was recommended to me. On examination I found just inside the anus ulceration, with stricture, very painful to touch; he could not bear the bougie. The use of an ointment composed of bismuth, blue ointment, and opium soon relieved the pain, and I was enabled to dilate, and he kept bougies in. This patient had never had soft sores in his life, nor even gonorrhœa. He was not a strumous, nor in any way a delicate man. The case ended favourably, showing the desirability of early treatment.

CASE 4.—Male, æt. 28, unmarried, a native of India studying medicine in this country. Had suffered from dysentery and diarrhœa frequently, but not severely, in his own country. Had been in England two years and no severe attack—in fact, much better here than abroad. About one month ago felt pain on defæcation, but took a little laxative, and found himself better; but still straining was frequent, with mucus and occasional blood. He came to me; he was a small, thin, agile man of more than average intelligence. *Examination*.—I found three inches from anus a stricture through which only a small bougie would pass. Injections of opium and starch in very small quantities relieved the pain, and allowed me to increase the size of the bougie. The stricture proved very amenable, and he was soon restored to perfect comfort, and his health improved. I advised the continuance of the short small bougie.

CASE 5.—Male, unmarried, but who intended to be married, came to me about an uneasy sensation in the rectum, frequent diarrhœa, and straining; occasionally mucus passed in abundance; was treated for syphilis with mercury in various forms by one of our best surgeons; now felt himself quite well. *Examination*.—Stricture an inch and a-half from anus, above the stricture ulceration. The stricture was hard, but the ulceration very soft. Had no other venereal affection since the sore. Health fair. I found it, after a time, necessary to divide the stricture freely; then the ulceration, by treatment—topical chiefly—rapidly improved, and after nine months he was fairly well. During my treatment I sent him to Aix-la-Chapelle, as he had a return of syphilitic sore-throat and rash, to be under the care of Dr. Brandish and undergo baths and mercurial inunction. He came back without any rash, and with his health greatly improved. The ulceration had then not healed, but soon after he got quite well, and, I think, remains sound.

CASE 6.—Male, single, æt. 47, retired captain in the army. Very bad stricture and ulceration; feeble and much worn and emaciated; says never had any venereal affection whatever, and as he had no reason for deceiving me, and I could find no trace of syphilis anywhere, I believed him. For some years he had this affection, and when in the army in India he was treated with bougies, but with very slight advantage. No history of phthisis in his family. Suffered very much. A careful course of bougies, keeping them in when he could bear them, a little division of the strictures (for there were two) in several places, gradually got him into a state of comfort, but cure seemed hopeless. He returned to me, and finding him suffering much I proposed colotomy, to which he acceded. The operation proved a signal success.

CASE 7.—Male, single. Said to have had only soft sore, but as copious rash followed, I am fain to believe, although the diagnosis was made by one of our greatest syphilographers, that an error was fallen into.

Two years after this sore he suffered pains on defecation and came to me. On *examination* I found stricture and ulceration commencing one inch from the anus, which outside appeared normal. The stricture was annular, and I divided it in several places and cautiously dilated. Blackwash lotion benefited the ulceration, but iodoform did most good, and he was soon well. I advised the use of the bougie once in the week for some months.

CASE 8.—Male, æt. 26, lieutenant in the army. No history of syphilis or any venereal disease whatever. Ill about nine months. Saw this patient with Sir James Paget, who agreed with me in the opinion that the disease was strumous. When I first saw him he had a very tight stricture close to the anus. This I divided and dilated only to find another stricture three inches higher up, and plentiful soft ulceration between the two strictures. Local and general treatment failed to do good; a voyage of some months' duration had a like result. When he returned he was seen in conjunction with me by Sir William Gull, whose opinion coincided with Sir James Paget's and my own. He had never had dysentery nor habitual diarrhœa.

CASE 9.—Male, æt. 37, married. History of soft sores under prepuce and buboes, one suppurating. No hardness observed, and no eruption or symptoms of constitutional syphilis known. Healthy-looking, strong man. An interval of eight months elapsed from the cure of his soft sores until he complained of passing blood and mucus with pain *per anum*. This went on for some time, and he treated it as piles, taking laxative medicines and using lead ointment. Finding no benefit, he was sent from the country to me. The history was given so truthfully that I could not doubt his words. He had no symptoms of syphilis, but he showed me a wound in the groin where one bubo was opened. On examining the rectum I could only just pass my finger through the stricture, and I found ulceration above it, but no trace of any below; he had small external piles, but no ichorous growths. The treatment was slight division of stricture, wearing a bougie all night, smeared with bismuth and morphia ointment; to keep the bowels open by the liquorice powder (Pharm. German), to avoid all alcohol and meat, and to live on farinaceous food and plenty of milk. Success soon crowned this treatment, and in three months he was quite convalescent.

CASE 10.—Male, æt. 46, first officer in American line of steamships. Has suffered for years in his bowels, terrible constipation, and passed motions with blood; much pain and frequent going to stool; been treated for piles, and always took sulphur, from which he derives considerable benefit. Very strong, healthy, steady man. Never had any venereal disease at all. Steadfastly held to this statement. Did not mean to say that he had run no risk, but had been fortunate. I could detect no sign of syphilis, no bubo-scars, or rash. *Examination of*

rectum.—Tight stricture an inch and a-half from the anus, and there was ulceration above and below the stricture. I divided the stricture and dilated, keeping in a vulcanite tube for several days. He became so much better that at the end of three weeks he again went to sea, using at night a small tube, which he could wear with comfort and no danger. I saw this patient many times, and found him always better, but a slight discharge of mucus still continued; as his constipation was removed and he suffered no pain, he became quite satisfied with the result. The only thing that radically benefited his constipation after the operation and dilatation was a dinner pill, which he took every other day, composed of extract of *nux vomica*, *ipecacuanha*, and compound rhubarb pill.

From a study of the history of twenty females treated, and watched afterwards for some time, it appears that seven had undoubted signs of constitutional syphilis, and thirteen had neither the symptoms nor history of any form of venereal disease; thus there was much less undeniable syphilis in private than in hospital practice. In the non-syphilitic patients, the ulceration was mostly tuberculous. Two patients ascribed the disease of the bowel to many difficult labours. I cannot see why injuries during labour should not be a source of ulceration ending in a constriction; in fact, I wonder we do not oftener meet with instances in which this cause alone can be assigned. One case resulted from an operation performed upon the rectum long since.

Question of
syphilis

In most cases, having the husband before us to interrogate and examine, we are enabled to compare his condition with that of his wife. I am confident that in the majority of cases the evidence of the husbands was to be depended upon. In Case 3, which was one of the worst strictures I ever saw, and in which I was compelled to perform colotomy, the husband had suffered from all kinds of venereal infection. Case 6 had iritis and well-marked syphilitic rash. I knew her husband had suffered from constitutional syphilis, as I had treated him. The poison probably was quiescent at the time he impregnated his wife, as the child was born healthy and has continued so up to nine years of age. Twenty months after the child was born, the mother suffered from syphilis for the first time. The husband about that time

consulted me for slight flying attacks of secondary symptoms, and he said there had been a crack at the entrance to the urethra, and, in my opinion, that crack inoculated his wife; she was not under my care, and no search was made for any sore, and it was not until seven years after she had become syphilised that she came to me.

A few words about the male patients, who were ten in number: observe in private practice how many more men in proportion to women than in hospital practice. Three had decided constitutional syphilis. One had doubtful symptoms. One had suffered from a soft sore under the prepuce, accompanied by a suppurating bubo, and the remainder, viz. five patients, had no syphilitic or venereal taint. Of these, repeated dysentery was probably the cause in one if not two. Two resulted from tuberculosis (my opinion in these cases was sustained by Sir James Paget). One resulted possibly from the hard life of a sailor; bad feeding, exposure to weather, dysenteric diarrhoea at times, but usually the most intractable constipation; his rectum for years was constantly irritated by contracting upon hard and dried masses of fæces. In such a case injury to the mucous membrane could not be an unexpected event. It is often difficult to trace the cause in a case of ulceration, but really such conditions as I have described must sometimes be either predisposing or exciting. In one case only was I obliged to perform lumbar colotomy. In one case also, Verneuil's operation was done; the success, however, was more than doubtful, as I have heard this patient is still suffering. I have found, speaking generally, that a fair amount of relief is more frequently attained by treatment in men than in women. Various reasons will suggest themselves to my readers, as conditions of the uterus, ovaries, vagina, coitus, &c. Lastly, I would observe that complete cures are seldom, if ever obtained, but great relief is not uncommon, and in favourable cases, by proper attention, the patient's life may scarcely be shortened by the malady.

On summing up my own statistics I can, in short, state that in women forty-two out of eighty had suffered or

were suffering from undoubted constitutional syphilis, and in twenty males, half were in the same condition; thus, out of the total number of one hundred patients, fifty-two (or more than half) were syphilitic. This is a greater proportion than I have seen mentioned before, but, as far as I can ascertain, the truth is stated. What causes brought about the ulceration, &c., in the forty-eight patients who were not syphilitic? We have propounded some causes—viz. tuberculosis (not so uncommon as generally supposed); dysentery and diarrhœa, usually following prolonged residence in tropical climates; obstinate, long-standing constipation; injuries to the uterus and vagina in parturition; operations on the rectum in persons of bad constitution; but will these causes account for all the cases? I am obliged to say I do not think so, and to confess in the majority of these patients I do not know the cause, nor have I been able to trace out any definite common state preceding the malady. If we could answer the question why ulceration and stricture is so much more frequent in the female than in the male, we should possibly have a clue; but, for my part, I cannot see that any satisfactory reply has been given to this question, nor has it to another question: why is epithelioma comparatively rarely found in women?

In connection with this part of the subject, I must say a few words about the view entertained by some French authorities, and also by eminent American surgeons—viz. that the vast majority (some say all) of cases of stricture and ulceration, not cancerous, result from contamination by the discharges from ‘soft sores’ or ‘chancreoids.’ They scarcely admit that constitutional syphilis has anything to do with the cases I have been considering in this chapter. When a former edition of this work appeared, I well knew that Dr. Gosselin, of Paris, had published these views; but I knew also that his conclusions had been arrived at from very few observations, that another explanation of his cases, which I will not mention, could be readily found, and that his theory had received but feeble support from any of his *confrères*, while many of the most eminent authors on syphilis, as Ricord, Fournier, Mollière, and others, had

Gosselin's
views

Mason's
views

altogether repudiated his doctrines. These I deemed to be sufficient reasons for not discussing the views in question; but since I have received a monograph from Dr. Erskine Mason, of New York, who adopts Gosselin's views in their entirety, I have without prejudice considered the subject, and observed my cases from the standpoint Dr. Mason takes, and I must state that I am not by any means convinced by Dr. Mason, though entertaining a very high sense of the ability and spirit with which his monograph is written.

I think I have made it quite clear in the foregoing pages that in both sexes the most intractable ulceration and stricture of the rectum may arise without there being any *venereal* element whatever in its causation, and I think I am not alone in this view. It appears from Dr. Mason's statistics, as well as my own, that about half the patients with ulceration and stricture 'have, or have had' constitutional syphilis. A fair inference is, I think, that some forms of syphilis may cause the rectal lesion. Post-mortem examinations have revealed, in addition to rectal ulceration, deposits in the liver, lesions of the brain and membranes, and diseases of bone; at least probably all these resulted from the same cause; but I do not wish for one moment to maintain that in every case when syphilis and ulceration of the rectum co-exist the latter is caused only by the former.

It is no sound argument to say that if the ulcerations of the rectum were syphilitic they ought to yield to the usual anti-syphilitic remedies, because it is well known that the latest syphilitic manifestations, or the sequelæ of syphilis, are commonly not amenable to specific treatment, whether they occur in one or other organ, and in fact the time has passed away in which any constitutional treatment could be expected to have much effect.

Dr. Mason says: 'I have repeatedly noticed the anus become contracted in women after the healing of several simple chancroids involving this portion of the intestine.' I must say I have never seen such a thing myself.

How can the discharge from a soft sore get into the

anus and thence to the rectum? By the discharge running down to the anus? possibly, but I should say rarely. Through menstruation? more probably. By direct contact from the male organ? most probably. In France this cannot be uncommon; I trust it is not common in America. I cannot say that in this country it is altogether unknown, but I hope and think it is infrequent. I will make this assertion without fear of contradiction; in the large majority of ulcerations of the rectum the disease does *not* commence at the *anus*, but at least an inch up the bowel—a condition, I would say, quite incompatible with the theory of inoculation from external discharge, but in accordance with what one might expect when the discharge was implanted by direct contact. Dr. Mason's own statistics bear out my statement as to the usual site of the ulcerating stricture.

Has anyone seen soft sores on any part of the body causing induration and contraction of tissues? do we see this in soft sores under a long prepuce? Then, once more, how does phagedænic ulceration accord with contraction and fibroid degeneration of tissue, which is one of the essential characteristics of advanced ulceration and stricture?

Dr. Mason asserts that he has seen 'constriction of the rectum follow, and that very shortly after the healing of chancroids had taken place.' I would ask, is this a pathological probability; and is the *post hoc* necessarily the *propter hoc* in such a case?

I shall but cite some eminent authorities on this very interesting subject, as space is wanting for further argument and observations. Time, I am sure, will dispel all doubt; but at present, I think we may safely say that the chancroid theory does not account for the majority of strictures and ulcerations of the rectum.

Ricord has expressed the opinion that many cases of stricture were caused by syphilitic deposits and ulceration. Fournier has most positively asserted that stricture and ulceration of the rectum were commonly caused by constitutional tertiary syphilis, and most rarely by local

Ricord's,
Fournier's,
and
Lance-
reaux'
views

contamination of any kind. Lancereaux, in his book on 'Syphilis, Historical and Practical,' states that gummata have been found in the large intestine, and although inclined to agree with Gosselin, and regard these 'contractions of the rectum' rather as venereal than syphilitic, yet would not too exclusively adopt the theory: inasmuch as gummy deposits are found in other parts of the intestinal canal, there is no reason why they should not occur in the rectum. The English surgeons most experienced in syphilis almost with one accord adhere to the constitutional theory, and discard the idea of the local origin of ulceration and stricture of the rectum. I have spoken to scarcely one gentleman who has not given me a similar answer to my questions on this point.

Lane's
views

My friend and former colleague, Mr. James R. Lane, at my request wrote me his opinion on this subject, and I venture to submit that few men have had greater opportunities for studying the matter than he. Many years Surgeon to the Hospital for Diseases of the Rectum, the worst forms of stricture and ulceration are perfectly familiar to him; for a still longer period as Surgeon to the Female Lock Hospital, he has had an almost unbounded field for observing every kind of sore to which the female genitals are exposed; and what does he say? 'I believe that the ulcerated strictures of the rectum to which you allude, and with which I am so familiar, are very rarely—I am almost disposed to say *never*—caused by primary syphilitic ulceration of the nature of soft sores. According to my Lock Hospital experience by far the most common seat of such sores is at the inferior fourchette, and the verge of the anus. They get well in due course under simple treatment, like soft sores generally do; sometimes, when situated on the sphincter ani, they produce the pain characteristic of "anal fissure," but they will heal all the same and the pain will disappear. When one of these sores extends into the rectum, which is very seldom the case, the result is a circumscribed rectal ulcer, which with treatment, and especially judicious cauterisation, will usually heal.' Mr. Lane further guards himself against being

supposed to consider all bad ulcerations and strictures as resulting from constitutional syphilis. In Mr. Lane's observations I most heartily concur. My experience of soft sores near the anus is that they speedily heal under proper treatment, and I have seen many cases cured in a few days by cleanliness and the use of a tartrate of iron lotion; and though these patients have been seen from time to time for other ailments, no ulceration or stricture of the rectum has been found to ensue.

Mr. Walter Coulson, Surgeon to the Lock Hospital, has never seen ulceration and stricture result from a soft sore, nor has my colleague, Mr. Alfred Cooper, who, like Mr. Lane, is Surgeon both to the Lock Hospital and to St. Mark's, and, therefore, has the double opportunity of noting these sores from an early period and following them, if they came, to the Hospital for Diseases of the Rectum afterwards.

Coulson's
and
Cooper's
views

Mr. Christopher Heath, of University College Hospital, has, in some lectures by him on 'Diseases of the Rectum,' strongly expressed his conviction that the cases we have been discussing are commonly the result of tertiary syphilis. Mr. Bryant, in his 'Practice of Surgery,' looks upon these ulcerations and strictures 'as mainly syphilitic,' and only thus notices Gosselin's views: 'Foreign authors describe chancroid disease of the rectum as venereal but not syphilitic; in this country it is hardly recognised.'

Heath's
and
Bryant's
views

CHAPTER XXIV.

CANCER OF THE RECTUM.

Cancer

THERE are very few parts of the human body which may not be attacked by cancer, but some are more frequently affected than others, and the rectum is one of the favourite sites of this disease. Cancer is, in the vast majority of cases, a fatal disease, and when the rectum is the part affected it usually runs its course in about two years. In many instances the duration of life is much less. I have watched a case of encephaloid which terminated fatally at the end of four months from the earliest symptoms of its invasion. Colotomy was performed by me when I first saw the patient, two months before death; but in my opinion it did not delay the progress of the disease one day, although it afforded relief from excruciating pain. On the other hand, I have seen a case of scirrhus on the anterior wall of the rectum, in which the patient lived for about four years and a-half.

Cancer is commonly a disease of middle life, but I have seen encephaloid rapidly fatal in a boy of seventeen; and some years ago there was in St. Mark's Hospital, under the care of my late colleague Mr. Gowlland, a boy, not thirteen, with cancer of the rectum. Scirrhus and epithelioma are not very uncommon in old people, and in them usually run a very slow course, which may be accounted for by the fact that in old persons the vital forces are sluggish.

It has been said that cancer is more frequent in women than in men. As regards the rectum, this is directly the reverse of my experience. In my statistics many more men are victims than women.

I am in accordance with those who do not consider cancer as an hereditary malady; it is true that there are very

few families in which cancer has not appeared, more or less remotely, but that is only because cancer in some form is so common in human beings. Although I always put the question, it has comparatively rarely happened to me to find that the father or mother, or even grandfather or grandmother, has suffered from the disease. Often uncles or aunts, or brothers or sisters, and still oftener cousins and more distant relations, have suffered from cancer; but the question of heredity is not thereby affected.

Some varieties of cancer may in their early stage be only and purely local; but I am afraid that stage is of very short duration, and that the above statement is hardly, certainly not practically, true of the more malignant forms. By this I mean that as soon as a growth exhibits itself, so as to be noticed by the patient, the disease is already constitutional, and the system is infected.

The forms of malignant disease usually described are Kinds epithelioma, scirrhus, various forms of sarcomata, encephaloid, colloid, and melanosis. I think I have placed them in their order of frequency. I have only once seen a melanotic tumour of the rectum. I have seen many colloid tumours, but I am not sure that encephaloid may not be colloid, or pass into it. From my own clinical observations I should be inclined to say that in cancer of the rectum it is often very difficult, if even possible, to make any distinction between epithelioma and broken-down scirrhus or sarcomata. I have seen cancers of the rectum stony hard at one part and quite soft at another. For practical purposes the precise name given to a growth—as epithelioma, scirrhus, &c.—is of no great importance. There are, however, three distinct states of cancer of the rectum, which are of moment both as to the prognosis and as to the treatment.

1st. There is an annular growth, rugged, irregular, narrowing the gut, but, as a rule, not giving rise to much pain. Its chief trouble comes from the constipation or diarrhœa it causes. This variety is commonly found in old people, and is not rapidly fatal (I have had some patients live for five or six years), its chief danger lying in a possible obstruction.

2nd. Another form may be felt, as a hard mass, generally firmly fixed, having a deep, ulcerated, crater-like opening. This form gives rise to intense pain, either from its involving and pressing upon the sacral nerves, or from the motions collecting in its crater-like surface.

3rd. The third form appears as an extremely rapid, spreading, and destructive ulcer, speedily involving and laying open the vagina or bladder. This is generally seen in the middle-aged, and kills them in a very few months from its commencement.

Position

Malignant growths are commonly found seated within three inches of the anus, the most rapidly dangerous being higher up, about the lower portion of the sigmoid flexure. When cancer occurs near the anus it may extend upwards beyond the reach of the finger, but more frequently it does not, and the whole extent of the disease can be ascertained. It is but rare that any form of cancer commences at the anus itself—I have seen some cases of epithelioma, but comparatively few—nor, as a rule, does the cancer come gradually down to the anus; in the very latest stages it may do so, but this is the exception. When it does come down to the anus it is generally mistaken for piles, and caustics are applied, to the aggravation of the patient's suffering.

Scirrhus, sarcoma, and encephaloid commence, according to my clinical experience, in the submucous tissue, and the mucous membrane may for a time remain quite smooth and unaffected, though adherent to the growth beneath.

In epithelioma the mucous membrane seems from the first to be the seat of the disorder, and even when the growth and thickening have become considerable, the whole will be found freely movable over the structures beneath. In the other kinds this is not the case; very early in the disease it has spread more deeply, and in many instances seems very immobile.

When cancer attacks the uppermost portion of the rectum or the sigmoid flexure, the disease generally runs a more rapid course, and is much more dangerous; indeed, sudden death is not uncommon, as total obstruction takes place quickly, and unless colotomy is promptly performed

the intestine gives way above the obstruction, and death ensues. I have seen a good many examples of this, and always warn the friends of what may happen. Cancerous stricture of the upper part of the sigmoid flexure or the descending colon is not so immediately dangerous, although the obstruction may be total. I saw with Mr. Sutton Sams, of Lee, an elderly lady, who had total obstruction high up the bowel, and yet lived for more than eight weeks. Another case I saw, in consultation with the late Mr. John M. Burton, also of an elderly lady, who had a similar obstruction and lived for many weeks, though she had constant vomiting. Many cases of this kind have come under my notice where patients would not submit to colotomy. I need not say that their suffering is very great and loudly calls for surgical interference.

The onset of cancer in the rectum is often marked by very trivial symptoms, hence the disorder comes upon you as a surprise. A patient may come into your consulting-room complaining of no more than a little uneasiness in the bowel or a slight morning diarrhœa. He may look thoroughly healthy and strong, and may really think himself, save for the slight local trouble, perfectly well, yet on making an examination you find the disease advanced beyond all possibility of doing any good. Symptoms

An elderly Scotch gentleman was sent to me by Dr. Nisbett, of Gravesend. To all appearance he was the wiry, healthy-looking Scot. 'Hard as nails' he said he was, but he was a little troubled by irregular action of the bowels—sometimes costive, sometimes loose—and he occasionally passed a little blood. On examination I found what I really did not expect, a hard scirrhus mass in the rectum, extending higher up the bowel than I could reach. By sheer power of constitution he lived a little more than twelve months from that interview.

Mr. Wilton, of Sutton, sent a gentleman, æt. 34, to me. He was suffering from some pain in the back, with a weary sensation after exertion; had small losses of blood at stool and rather frequent motions, always in the morning and sometimes at night. His idea was that he had piles. On

examination I found an epithelioma commencing just within reach of the finger, and extending, as I found by careful sounding, at least two inches higher up. The growth was causing some contraction of the bowel. This patient was afterwards the subject of secondary deposits in the liver.

As a rule, cancer of the rectum is most horribly painful, the function of the part enhancing the suffering; but I have seen patients in whom there has not been excessive pain, particularly in the early period. In the more advanced stages of the remedy the pain often becomes unremitting, from the fact that many nerves become involved, and are pressed upon or stretched, the neighbouring organs thus becoming seats of separate pain, even if they are not actually touched by the growth. I had a patient with cancer, which, commencing in the rectum, involved the whole cavity of the pelvis, and pain down the right sciatic nerve was very severe.

Among the most distressing symptoms attending cancer of the rectum must be numbered, violent straining.

The cancerous growth, especially when it approaches the anus, provokes reflex action, and irresistible bearing-down results.

The more malignant forms of cancer do not exist very long in the rectum before they poison the blood generally, and cause secondary deposits in the lumbar glands, groin, liver, &c. The aspect of countenance which so often attends the cancerous cachexia is very usual, and seen earlier in cancer of the rectum than in the same disease of other parts. In cancerous growths high up, vomiting, frequent and severe, is an early symptom, even when not much obstruction exists.

Diagnosis

There is something peculiar about the feel of cancer, which the practised finger rarely mistakes even for simple indurated ulceration. I think it is many years now since I mistook the one for the other. There is also a peculiar odour which one cannot describe, but which once recognised will rarely be forgotten. In my opinion the odour is pathognomonic.

Microscope

In difficult cases it is supposed by some that the dia-

gnosis may be decided by the use of the microscope. It may, indeed, be of some little assistance when combined with the light thrown on the case by its clinical aspects. But it is well known that some of the innocent growths approach very closely in their structure to malignant ones; sometimes part of a growth under the microscope appears to be innocent, while another part is declared to be malignant. It can, therefore, be seen how dangerous it is to rely on the microscope in determining whether a rectal tumour is innocent or cancerous. For my own part I prefer to draw my diagnoses from the clinical aspects of any case rather than from a report based chiefly upon a microscopical examination.

I now come to the consideration of a very important but unsatisfactory part of my subject—viz. What can one do for the relief of rectal cancer?

I have never seen any benefit result from the application of caustics to growths within the bowel; but when a cancerous mass protrudes—which, however, is a somewhat rare occurrence—I have relieved pain and got rid of a good deal of the growth by using the arsenite of copper with mucilage as a paste; this destroys rapidly without increasing the suffering at the time; it does not cause bleeding, and, as far as my experience goes, it is free from danger.

Palliative
treatment

The treatment in the majority of cases of cancer still resolves itself, for the most part, into an attempt to assuage the suffering of the patient. Pain is generally mitigated by the recumbent posture, and good, easily assimilated, nourishing diet, with alcohol in moderate quantities. All varieties of sedatives may be used with benefit externally and internally, and when one drug loses its effect another should be substituted. Opium in its several forms is the most effective agent we possess. It may be used as a suppository, in which case the best formula is morphia with glycerine and gelatine (three of glycerine to one of gelatine), as this melts very soon, and does not feel like a foreign body in the sensitive bowel as suppositories made of cacao-butter so frequently do; injections of Battley's sedative, nepenthe, or black drop, in starch, sometimes afford

great relief. Solid opium by the mouth is a great favourite with me, but the objection to it is that the stomach gets irritated, the appetite fails, and the bowels are confined. Probably most patients obtain the greatest comfort from hypodermic injections of morphia, but no opiate can be used long without inducing a state of mind almost as unendurable as the pain of the disease, and therefore great care should be taken to husband the remedy as much as possible, never using a larger dose than is absolutely necessary, bearing in mind that you may have to rely upon it more or less, even for months.

Chian turpentine

It has been asserted by Mr. John Clay, of Birmingham, that Chian turpentine has a curative action in certain cases of cancer. Following Mr. Clay's method, I administered this drug in forty-nine cases of malignant disease of the rectum, many of the patients taking it for several months, even up to a short time before death. The turpentine was genuine, being obtained, for the most part, from the chemists recommended by Mr. Clay; in only two cases did I see the slightest mitigation of symptoms. Both these patients took the medicine for nearly twelve months, but the improvement was quite evanescent and the patients died. In all the other cases, either no effect was manifested or only a bad one—viz. nausea and frequent derangement of the appetite and functions of the stomach. The drug was exhibited in the best way, both in solution and pill, and in many cases combined with sulphur. I have seen several patients who had been under Mr. Clay's treatment, but they were in no way benefited any more than those treated by myself, although one case was considered by Mr. Clay to be doing very well, and was probably reported as cured.

Division of sphincter

When cancerous growths approach the anus considerable relief may be obtained by dividing the sphincter muscles; defæcation is thus rendered easier, and no possible compression can be exercised. Usually, as I have said when speaking of stricture, a cancer of the upper part of the rectum paralyses the sphincters, doubtless from pressure on nerves, and the patient is not able to retain

the motions, especially if they are at all liquid. When diminution of the calibre of the bowel is induced by cancer near the anus, Professor Verneuil has proposed free division of the gut in the dorsal median line, or even the excision of a segment of the posterior wall of the rectum. The former operation I have frequently practised; the latter does not commend itself to my mind.

In encephaloid of the rectum great temporary advantage Scooping and much relief from pain may be obtained by tearing out the growth by the fingers or a scoop (as the late Professor Simon advocated in cancer of the uterus). I prefer my fingers. You must be bold in doing this, and enucleate the whole growth quickly and resolutely. If you tear away only superficial portions, hæmorrhage may occur to a considerable extent, which must exhaust your patient, and no real benefit will accrue.

I had a case under treatment in conjunction with Mr. Pinching, of Gravesend, in the person of a member of our own profession. An immense encephaloid growth almost filled up his pelvis, and he came to London to see if I could do anything for him. He was in such a condition that I thought he could not bear colotomy; but I saw that, if I could remove the growth in great part without his losing blood to any extent, great relief must follow. Accordingly, assisted by Mr. Pinching, I made a free division of the anus, the muscles and fat around which had been so thinned away by the pressure of the growth that it was only like cutting through thin devitalised skin. Only one small vessel appeared inclined to bleed, and this I immediately twisted. I now passed my hand gently into the pelvis, got my fingers well above the growth, and tore it out. A large mass was at once removed. I then continued to remove all I could find, and it came away exactly like brain in appearance and in quantity sufficient to fill a good-sized pudding-basin. I had come fully prepared with subsulphate of iron, the actual cautery, sponges, and wool, in order to be able to plug at once should hæmorrhage take place; but to my astonishment there was no bleeding worth mentioning, and the cavity from which the cancer had been removed was dry, and grey

in colour with red spots. As a precaution against secondary hæmorrhage I put in sponges powdered with subsulphate of iron, but there was no bleeding at all. From the day after the operation the patient rallied, lost his night-sweats, ate and drank all we gave him, and was able to return home in a few weeks. After this he lived in comparative comfort for two months, then as the growth returned he very gradually died from exhaustion, nearly five months having elapsed since he underwent my treatment. Twice since this I have carried out this plan in a similar manner, and in both cases great, though temporary, relief followed. I have adopted this in some cases of epithelioma. When the growth is hard I have torn it away with a Volekman spoon. This is not at all a bad method when the growth is within reach, as this scooping away allows of the passage of motions; and in patients who have refused to submit to colotomy, I have prevented their getting total obstruction by carefully pursuing this course. I have been surprised to observe in these cases after the removal of the cancerous growths that the facial appearance of the patients has so immensely improved; in fact, they sometimes lose the malignant aspect, and not until the growth gradually returns, and with it the poisoning of their blood and tissues, does the countenance reassume its worn, haggard look. So also in respect of strength, freedom from pain, appetite, and capacity for sleep, the change for the better was remarkable.

Excision
and colot-
omy

Two operations have been practised for the relief of rectal cancer. The one is extirpation of all the diseased portions of the rectum, which, further, is stated by some surgeons to effect a positive cure of the disease in some cases. The other operation is colotomy, lumbar or inguinal, which only professes to relieve pain and obstruction, and possibly extend the term of the patient's life.

These operations will be fully described in the three succeeding chapters.

When to
be used

I will now set forth the various conditions in which each of these operations should be used.

Excision of the rectum can only be performed with any

safety to the patient when the growth is situated at the lower part of the rectum, and when at the same time the finger can feel healthy bowel above the uppermost limit of the growth. Again, excision is only suitable to those cases in which the growth is movable, *i.e.* is not infiltrating or involving tissues outside the rectal tube, as the sacrum, bladder, &c. Excision

Inguinal or lumbar colotomy may be performed when the cancer is high up in the rectum, when it is fixed, when it blocks up the bowel, causing obstruction, or when there is great pain and irritation to the growth from the constant passage of fæces over it, or in persistent diarrhœa. It is in these last two conditions that inguinal colotomy is specially advantageous, as it also is in incurable cases of recto-vaginal or recto-vesical fistulæ. Colotomy

CHAPTER XXV.

PARTIAL AND COMPLETE EXCISION OF THE RECTUM.

Excision **Excision** of the rectum (as it is frequently termed), broadly speaking, may be undertaken in any form of cancer which does not necessitate the removal of more than four and three-quarters or five inches of the rectum in the male and about one inch less in the female. Subject to the results of increased experience, I should also say that if great adhesions are formed to the sacrum or to the base of the bladder and prostate gland, or to the neck of the uterus in women, the operation is probably not admissible, and certainly not desirable. Again, if any enlarged glands exist in the inguinal or lumbar regions the operation cannot be recommended; lastly, I should say the patient ought not to be so exhausted as to render it doubtful whether the necessarily rather free loss of blood would, to a great degree, endanger life.

Relation of peritoneum to rectum The length of the rectum from the anus which may be removed without opening the peritoneal cavity differs in individuals, and the conclusions arrived at by measurements of the dead body or by taking plaster casts of the reflections of the peritoneum are fallacious, and must be taken as an approximation to the truth only. In a female patient on whom I operated, Douglas's pouch was only two inches from the anus. In a male fully five inches of the rectum were removed, and the peritoneum never seen; and in another male, in which not more than three and a-half inches were cut off, the peritoneum was opened and a coil of intestine protruded. A point of considerable importance in operating is to divide the levator ani muscle at its attachment to the rectum, by which means you get the

rectum to come readily down, and in making the necessary traction on it you do not draw the peritoneum down with it. Another point worth remembering is that the mesorectum is more developed in some subjects than in others, and descends below the upper half of the rectum.

It is not my intention to enter into the history of the operation of excision of the rectum, nor shall I describe the various ways in which it may be performed; but I beg to refer the reader who wishes the fullest information on these subjects to the able and exhaustive work of Dr. Marchand, entitled, '*Étude sur l'extirpation de l'extrémité inférieure du Rectum.*' I will only here mention that Faget, in the year 1739, excised the rectum for cancer, that after this the operation remained in abeyance until 1828, when it was revived by Lisfranc, who performed it in several cases with success. At a comparatively recent date it has been frequently undertaken by both French and German surgeons, and with such good results as to establish the operation on a reliable basis. The Americans and ourselves have brought up the rear; possibly we are more cautious and have had our doubts as to the great benefits claimed for it by our foreign *confrères*: certainly we are justified in distrusting such statements as Dieffenbach's, who said that he had thirty cases of successful extirpation of the rectum, the patients living many years after the operation. We have also felt incredulous as to the advantage derived from cutting out the rectum, a portion of the urethra, prostate gland, and base of the bladder, as did Nussbaum, who gravely assures us that the patient recovered all his functions and lived for three years. Lately a method has been suggested in which the rectum may be excised from a posterior incision combined with the usual ones. Pieces of the sacrum and coccyx are removed in order to get at the healthy bowel, and thus the rectum is extirpated from behind, and the gut stitched to the upper angle of the posterior wound.

History of
excision

My own experience of removing cancerous growths from the rectum is not very great when compared with the number of cases of cancer I have seen. I find that I have

excised segments of the bowel by knife alone, or combined with the *écraseur* or ligature (elastic and inelastic), in many cases, and in forty-two patients I have removed the rectum in its whole circumference, the largest portions taken away being in two cases five inches and five inches and a-half in length respectively.

I shall not enlarge on my operations upon segments of the rectum, because the question to be determined is, Can one cure a patient who has cancer—say epithelioma—by excising the whole of the diseased portion of the rectum?

Partial ex-
cision

Speaking generally of partial removals of the circumference of the bowel, I must say, on further experience, I think the operation, when the growth is limited and there are no glands or secondary nodules to be felt in the rectum, advantageous, provided the growth be very freely removed in every direction, and, further, a complete drainage be obtained by prolonging the incision through the sphincters and out of the anus. In a case—a patient of Mr. George Ord—the growth did not return until after one year and five months had elapsed. All my cases were not epithelioma; some presented scirrhus nodules.

Mr. Rouse, of St. George's Hospital, has related a case in the '*Lancet*,' October 2, 1880, of removal of a small cancerous growth of the rectum, about an inch from the anus, by making a curved incision just outside the external sphincter, and pushing the growth from the rectum through this opening; it was then cut off, and the patient did well. Mr. John Gay has related an almost exactly similar case, but it is obvious that the feasibility of the operation depends upon the extremely rare circumstance of the growth being so low down. Mr. Gay's patient, I know, did not long survive the operation, but I do not know how Mr. Rouse's case has terminated.

Usual
method of
entire ex-
cision

The method of entire excision formerly employed by me was that which has found most favour with the French authorities. The deep dorsal incision I really consider the 'key' to the operation. It gives you plenty of room, which is essential if you have to remove any considerable length

of the rectum, and so get fully above the growth. Further, it saves much loss of blood, as it enables you to secure the vessels, if necessary, with rapidity and certainty. Lastly, it forms a deep drain or channel through which all obnoxious matters can freely escape. It is the retention of morbid particles which is dangerous; let them all run away as they are generated, and you may defy pyæmia without any antiseptics. In saying this I am not insensible to the advantages of these chemicals when you cannot get deep drainage.

In operating on the male I always have a silver catheter passed into the bladder; the assistant hooks it well up under the pubic arch; the urethra and adjoining parts are thus steadied, and you are enabled to carry on delicate dissections without danger in the neighbourhood of the urethra, the prostate, and the trigone of the bladder.

By the following method the rectum is most easily and rapidly excised: The patient being in the lithotomy position, a modification of the posterior dorsal incision of Prof. Verneuil should be made. The usual way is, on the finger, to pass a bistoury into the rectum as far as the upper limit of the growth, and then to cut right down to the sacrum and tip of the coccyx, dividing the entire bowel dorsally. Now I put the first finger of the left hand into the bowel, and then introduce a sharp-pointed bistoury through the skin a little below the anus, making it travel in the cellular tissue up to the top of the growth, but entirely outside the rectal tube. I then cut down to the sacrum and coccyx, and put a sponge into the incision to arrest bleeding (diagram 45). Next with a scalpel I cut deeply all round the rectum, above the external sphincter, or rather in the space between the internal and external sphincters, so as to leave the external sphincter attached to the skin. I then divide the external sphincter posteriorly. Now with the finger in the rectum and the thumb in the cut between the sphincters, put one blade of a pair of long, blunt-pointed scissors into the posterior cut, and push the other blade into the cellular tissue of the ischio-rectal fossa. After this, cut through all the cellular

Allingham,
jun.'s,
method

tissue between the blades, and repeat this proceeding on the other side, keeping the finger of the left hand in the rectum while the left side is being incised, and the first

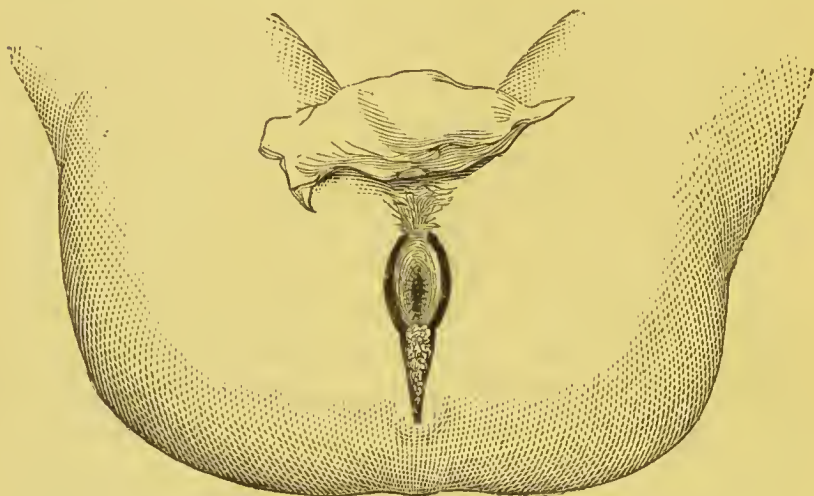


FIG. 45.

finger of the right hand while the right side is being cut. Of course, to manage this properly, you must be ambidexter. Then introduce sponges into the incisions on each

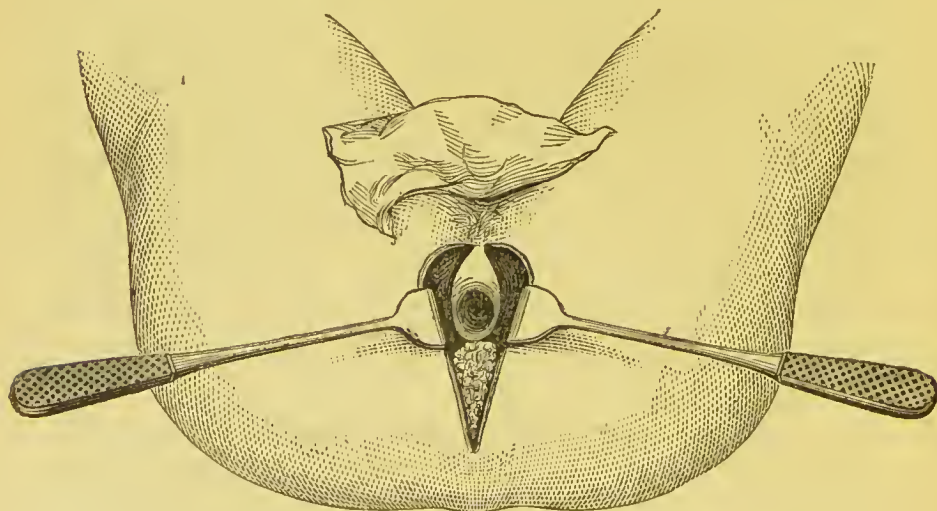


FIG. 46.

side of the bowel, and separate the outer parts from the bowel by broad flat retractors (diagram 46). Bleeding is then prevented, and you need not stop to clip vessels.

Next turn to the perineal part. With the finger still in the bowel, and the thumb outside it, you can tell by the amount of the wall of the gut between finger and thumb how near to the rectum you are cutting. If the scissors are kept touching the thumb-nail, and the rectum is drawn

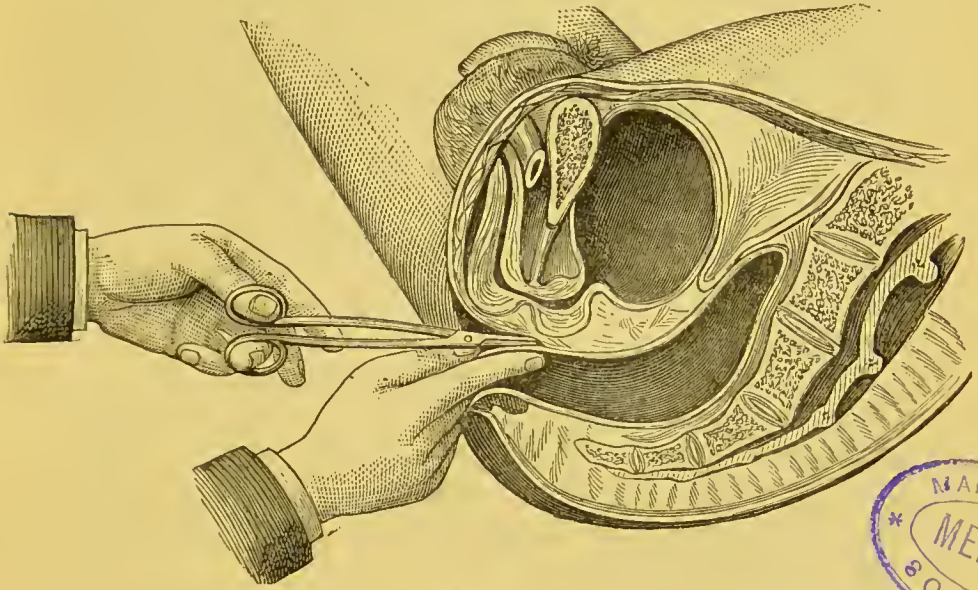


FIG. 47.

backwards while you are cutting (diagram 47), there is no danger of wounding the urethra or bladder, or of incising the bowel. When all the rectum is separated from the tissues around, to one inch or more above the growth, the sponges may be taken out. There is generally little bleeding, because the inferior hæmorrhoidal vessels, and any others running across the ischio-rectal spaces to the rectum, are small, and soon retract and contract. They may be easily made to do so by sponging the wound with equal parts of very hot water and spirit. The only large vessels that may be divided are the superior hæmorrhoidal, which are situated in the rectal walls. Now pull down the separated rectum and crush it with the screw-crusher, or remove it by the *écraseur*. If you are not afraid of hæmorrhage the bowel may be cut off with scissors. It is well, before cutting the lower part of the bowel off, to secure the upper part with a *vulsellum*, as it might otherwise slip out of



reach and bleed freely. By these means the rectum may be removed in ten minutes with the greatest ease.

There are a few important points to be observed in this method of excision.

Advantages of
this method

I. Little hæmorrhage is to be feared if the above details are attended to, and the more quickly you operate the less bleeding there is. If an hour be taken in excising the rectum, much blood is necessarily lost by your wasting time to pick up vessels which will stop bleeding of their own accord if left alone, or subjected to a little pressure.

II. By not dividing the bowel itself, when making the dorsal incision, you can, by means of the finger in the gut, which is still a tube, and by the thumb, which is outside the rectal wall, easily tell where you are cutting. Greater speed is thus ensured.

III. By leaving the external sphincter in the outer skin, sphincter power is obtained after the operation, whereas if the external sphincter is removed with the gut no retentive control can be exercised. Several patients upon whom I have operated in this manner, have had good control over their motions.

IV. Blunt-pointed scissors are used in the greater part of the operation, as you can cut with them with more precision and greater rapidity.

Excision
in women

In women the assistant's finger ought to be introduced into the vagina, to give you timely warning when you approach too near its mucous membrane.

In most of my cases it was absolutely impossible to bring down the stump of the rectum to the skin; if, indeed, these parts could be brought together the tension would be so great that the sutures would be torn out in a few hours. I cannot understand how Volckman brings the rectum to the skin, puts in sutures, and gets primary union. I can only say that the operation I do must differ much from Volckman's.

After-treatment

I have never used carbolic dressings with the view of following Sir Joseph Lister in his antiseptic treatment; in fact, these operations appear to me to be about the very last to which the process, valuable as it undoubtedly is in

some cases, is applicable. Looking at the chasm I make and the part in which it is made, I should say that shutting up the cavity by sutures and then endeavouring to keep that cavity sweet and healthy by drainage-tubes and deeper tubes put through holes made by the surgeon, would be making a plaything of antiseptic surgery. How can you prevent faecal matter from getting into the wound, so incompletely closed as it must be by sutures? Perhaps it may be said that the bowels must be kept confined for days after the operation. To this I would answer, it is often impossible to do so. The intestines of these patients are always in an irritable condition, and neither opium nor any other drug will delay action for long. Then, again, I would say it is not good to confine the bowels; for should a large mass form in the upper part of the rectum, such pressure on the vessels is exercised that congestion and stasis are induced, and these conditions are quite inimical to the healing process. I am fully convinced that the best after-treatment of these cases is to establish a good drainage from the wound, to keep the parts clean by syringing with some innocent disinfectant, and if you accomplish this you need not fear; the wound will rapidly fill up, and the rectum will grow downwards and unite with the skin.

Mr. James Adams (the late), of the London Hospital, has suggested that prior to excising cancer of the rectum, colotomy should be performed. His arguments in favour of such a step are briefly as follows: 'That in cases of any but of the slightest degree, the operation might prove incomplete and the disease speedily return; that after complete removal of the lower part of the rectum, the subsequent contraction is often very great, and sometimes quite intractable; and that in any case the healing of the wound would be expedited and the tendency to local recurrence diminished by diverting the course of the fæces.' He operated in a case in which this line of action was adopted with the most satisfactory result.

Excision
combined
with colo-
tomy

I will only cite ten cases of excision of the rectum.

CASE 1.—My first excision of the whole circumference of the rectum was performed at St. Mark's Hospital on March 2, 1874. The patient

Cases

was a woman, 47 years old. She was a widow, with a family; she did not look very unhealthy, and was fairly nourished, but she said she had become thinner. Six months back she had been operated on in the London Hospital for fissure, but she did not get well; soon after the operation the pain was as bad as before it. There was constant gnawing pain in the anus, much increased on defæcation, and she was obliged to strain at stool. *Examination.*—The anus was patulous, but just inside was a contraction formed by hardish ulcerated growths, which nearly encircled the bowel. The extent upwards was not more than an inch. There was no history of syphilis nor any symptom. I had no hesitation in pronouncing the disease to be epithelioma, and I removed it by a circular incision around the anus including the sphincter. I dissected the bowel up without difficulty, as there were no adhesions, drew the gut outside, and cut it off with scissors. I took care to have the bowel held well out with a vulsellum. There was smart bleeding, but four vessels being tied it all ceased. I then joined the stump of the rectum to the skin with six wire sutures. On the day after the operation there was much swelling, and on the day following there was lividity of the skin and great tension, so I was compelled to remove all the sutures, and a quantity of pus was discharged and the parts widely gaped. I ordered charcoal poultices and injections of Condyl's fluid. After a few days the wound assumed a healthy appearance, and the patient made a good recovery. I was much astonished at the way in which the rectum gradually grew downwards and joined the skin, forming an excellent cicatrix. Before leaving the hospital she had some power over her motions. I watched this patient for sixteen months, following her to a distance rather than lose sight of her. No disease returned in the rectum, but in eleven months she had abdominal symptoms; emaciation was very rapid; she suffered much, and died sixteen months after the operation, having kept her bed for five months.

CASE 2.—A man, æt. 36, was taken into St. Mark's Hospital. He had suffered from hæmorrhoids, and had been under my care before. He continued well for two years, when he began to suffer pain in the rectum, and passed blood and mucus; the bowels were almost always relaxed and he had but little straining, but he had incontinence of fæces. The patient was unhealthy-looking, and had lost flesh and strength. On *examination* a cancerous growth was found encircling three-fourths of the rectum on its dorsal surface. The anterior portion seemed uninvaded; nevertheless, I thought it advisable to remove the gut in its entire circumference by an elliptical incision. A silver catheter was passed into the bladder, to steady the urothra. The part removed was about two inches in length; no difficulty presented itself in the operation. I did not put in any sutures, but filled the wound with wool soaked in weak carbolic oil. No bad symptoms followed, and the parts were quite healed in four weeks. This patient returned to me three months after the operation with contraction of the anal

orifice. I made an incision to correct this, and he had no trouble afterwards. Seven months subsequent to the operation the cancer appeared higher up the rectum; he refused any further surgical interference. After a little time I lost sight of him, and therefore do not know how long he survived. For four months after the operation he was quite comfortable, had no incontinence of fæces, and was able to do his work.

CASE 3.—A man, in rather poor circumstances, but who would not come into the hospital, was sent to me by Mr. Slater, of Canonbury. I saw him first in January of 1875. He was a spare man, about fifty. He had suffered pain for some months in the bowel; it was pretty constant and much aggravated on action of the bowels. He felt weak and had lost much weight. On *examination* I found a rather large cancerous growth two inches from the anus; it did not involve the whole circumference of the bowel; it was movable in all directions. I could easily reach its upper border, and bring the growth close to the anus. I proposed removing it, but the man declined. In March following he came to me again, saying he had suffered so much that I might do what I liked to afford him relief. *Examination* showed that the cancer had approached much nearer to the anus, but there still remained a zone of healthy mucous membrane between the growth (which I believed to be epithelial) and the anus. There did not appear to be any important adhesions except dorsally; anteriorly very little amiss was detected, and the gut was quite movable. I determined on excising the growth, and to leave the external sphincter by carrying my knife around the bowel in the space between the two muscles. I discovered when I had made this incision, from which blood flowed plentifully, that I could not safely remove the growth, so I made a deep dorsal cut in the median line nearly to the coccyx. I was delighted to find the amount of room this gave me, and how it rendered the operation comparatively easy. In all my subsequent cases I have commenced my operation by cutting from the point of the coccyx well up into the bowel, a proceeding so strongly recommended by Prof. Verneuil. No serious obstacles were found, and I ablated about three inches of the rectum, cutting well free of the growth. I attempted to bring the stump of the rectum to the skin by sutures, as I hoped thus to save the external sphincter which I had preserved, but the tension was too great, and I, therefore, only filled the wound with sponges soaked in a weak solution of chloride of zinc. The after-progress on the whole was satisfactory but slow, and the wound took seven weeks in healing. This patient died fourteen months after the operation. He was in comparative comfort for twelve months, and had fair command over his motions, unless they were liquid. The disease did not return in the rectum, but the glands in the groin became affected, and possibly also some internal organs. He suffered much pain towards the last.

CASE 4.—A gentleman, æt. 60, came to me from the country saying he was suffering from stricture of the rectum, which had troubled him for about eight or nine months; he had consulted several eminent provincial surgeons, and had used bougies with temporary benefit. He was thin, but fairly strong and active; the expression of his face was healthy. On *examination* I found his bowel obstructed by a growth which quite surrounded the gut; it was ulcerated in parts; it commenced about an inch from the anus, and the zone measured about two inches at most in length; it was freely movable in all directions; no glandular complication could be detected. I advised its immediate removal. He went home to consider the matter, to consult his relatives, and one of the surgeons he had seen. He returned to town in a few weeks, and I operated upon him. I operated exactly as in the last case, save that I made the dorsal incision the preliminary step. In this case the bleeding was very free, and I liberally used the actual cautery to the cut surface of the rectum as well as to other parts. The wound was filled with sponge steeped in a weak solution of carbolic acid, and I introduced a tube into the rectum in order that wind might escape, the retention of which had much troubled my last patient. The wound healed kindly. There was no fever after the first forty-eight hours, and the patient suffered remarkably little. In five weeks he went away quite satisfied, and I expected a good result; but I was disappointed, as in five months he came to me with a return of the growth, quite near the anus, involving the scar and the skin; it was a hard lump the size of half a walnut, and I advised him to let me cut it out; he acquiesced and I removed it freely, but did not take away the whole circumference of the gut. This I afterwards regretted, as I saw him in about three months again with much more growth at the anterior part of the rectum. He was now weak and greatly broken in health, and despairing of relief he refused any more active treatment. I heard from his friends that he died just eleven months and a-half from the first operation.

CASE 5.—I saw with the late Dr. Daldy a single lady, æt. 40, who was affected with what she supposed to be piles. She lost blood in small quantities, had frequent diarrhœa with incontinence of fæces, and there was a discharge of sanious, ill-smelling mucus. The pain was not great except when the bowels acted. She was fairly nourished, and was going about her duties as usual. On *examination* I found a growth in the rectum one and a-half inches from the anus, and extending but little upwards; it was hard and rough to the touch in some parts and pulpy in others; it was situated principally on the anterior part of the bowel, but extended laterally nearly to the sacrum; it was most adherent to the vaginal wall, and could be felt distinctly with the finger in the vagina, but I thought it did not involve the vaginal mucous membrane. With some misgiving I advised the removal of the growth, fearing that I should have to take out a portion

of the vagina in order to thoroughly extirpate it. When the patient found that no other course was open to her to obtain relief, and that the danger would probably be increased by delay, she consented to have the operation done. In order to obtain plenty of room I commenced with the dorsal median incision, and made an exceedingly careful and cautious dissection, but I found the growth so intimately connected with the vaginal wall that I was compelled to remove a portion of the vagina fully one inch in length by half an inch in breadth. The hole made being elliptical, after having removed all the diseased tissues, I brought the edges of the wound together with four silver sutures. I put no dressing in the wound, simply placing a tube in the bowel. On examining the growth there could be no doubt that it was mainly epithelial, but there was much warty structure in it which accounted for the roughness I had detected. Fortunately the wound in the vagina healed at once, and the patient made an excellent recovery. This lady I heard from (three years after the operation), and she was quite well. This is one of the best results I have as yet obtained, but it is clear that the growth was only feebly malignant.

CASE 6.—A man, æt. 61, was admitted into St. Mark's Hospital, suffering from epithelioma of the rectum. The disease had existed about three months. There was slight obstruction of the bowel, and he had great pain; he had straining at stool, and there was a constant bloody mucous discharge; he had no incontinence of fæces unless they were liquid; he was a small, spare man, of not unhealthy appearance; he did not think he had lost flesh, as he was always thin; he had always enjoyed good health. On *examination* a hard growth was found commencing an inch from the anus; it encircled the bowel save on the left side, which was soft and ulcerated; it extended about two inches upwards; it was fairly movable except towards the prostate. I operated in the usual manner. The gut was very adherent to the prostate gland, and took a considerable time to dissect off; the capsule of the prostate was removed, and the vesiculæ seminales plainly seen. Rather more than three and a-half inches were removed. I saved the internal sphincter muscle. The peritoneum on the right side of the bowel was opened, and I saw a coil of intestine. A sponge well carbolicised was placed against the opening, and the wound was filled with wool soaked in carbolic oil. After the operation the patient had not a bad symptom, and he left the hospital quite well, having gained flesh and improved in appearance. This patient died thirteen months after the operation. No return of the disease took place in the rectum, but the glands in the inguinal regions were enormously enlarged, and one gland was the seat of fungoid ulceration.

CASE 7.—A man, æt. 50, came under my care. He was a tall, thin man with a somewhat haggard countenance, but he was not weak, and had worked as a carpenter up to his admission. He had suffered for some months—he could not say exactly how many—from trouble in

the bowel, the common symptoms of ulceration or malignant disease being present. On *examination* I detected an epithelial growth in the rectum, commencing within an inch and a-half of the anus, and passing up so high that I could only, by making the patient stand up and strain down, just feel the upper border of the cancer, and satisfy myself that I could remove the whole of the disease. The growth was more than commonly adherent, especially to the left side. A silver catheter was passed into the bladder when I reached the anterior part of the rectum. I made the dorsal incision, and carried my knife around in the interspace between the sphincter muscles. The dissection was very difficult anteriorly and on the left side, and I had to go very deeply to get all the growth away. I made use of my fingers and avoided the knife as much as I could. The hæmorrhage was free throughout, but controllable by pressure. Indeed, not a single vessel required ligature; a few were twisted. In separating the diseased portion of gut anteriorly the prostatic gland and the vesiculæ seminales were fully exposed. The stump of the rectum could not have been brought down to join the skin if I had desired to bring these parts together. For a few days the patient was in a critical condition, the temperature keeping at 104° and a little above; but these symptoms passed off, with the establishment of suppuration and the separation of some largish sloughs, and he made a good though rather slow recovery. He left the hospital quite well, with the gut grown down to the skin, and the whole part as smooth and soft as healthy mucous membrane could be. Eight months after the operation the man had such a contracted orifice to the bowel that I was compelled to take him into the hospital, and finding that bougies were of no avail, to divide the anus on both sides. This soon cured the contraction, but I sent him out with a tube to prevent any recurrence of the trouble; this, however, failed. He lives now, ten years after the operation.

CASE 8.—A gentleman, æt. about 60. Had a nodule of hard cancer in the cellular tissue just inside the anus. It was so movable and circumscribed that I could not resist the temptation to remove it by a very free incision without cutting out the whole circumference of the bowel. I was confident I had got away all the diseased tissue recognisable by the eye or touch. A microscopic examination showed the tumour to be scirrhus. From time to time I saw this gentleman, and he had no return of the disease until the middle of March, when he complained of discomfort and some pain in the bowel. He had been quite well for one year and five months. On my examining him I detected small nodules in the mucous membrane about two inches from the anus. The site of the old excision was quite healthy. I urged him to allow me to remove the nodules at once, but he consulted some other surgeons, and as they told him nothing could be done as the places were too high up, he declined to allow me to interfere. Some months elapsed before this patient came to me again; finding

himself getting daily worse and losing strength and flesh he said he was prepared to submit himself to my wish, but on examining him I found the disease had grown down nearly to the anus, and was almost all round the bowel. Under these circumstances I said that Sir James Paget should decide whether an operation should be done or not, and as Sir James decided in favour of an operation, I performed it in August, removing fully four inches of the rectum. The growth was now clearly epithelial—in fact, it was an admirable specimen, as was the first tumour I removed a typical example of scirrhus. The operation, in consequence of the adhesions, was a lengthy one, and the bleeding very severe. The peritoneum was not injured. A very large chasm was left, and was filled with sponges soaked in a solution of salicylic acid. Some pressure was required to arrest a general oozing from the large surface. A tube was put into the bowel. The night following the operation the patient had a most severe rigor, and the temperature went up to 104.5° . I thought something serious was about to happen. I took out all the sponges and syringed the parts well with solution of salicylic acid, and administered a large dose of quinine. In the morning the patient was quite comfortable, with the temperature fallen to 99.5° . After this, although the patient was troubled very much by two or three actions of the bowels daily, which we could not stop, he made the most remarkable recovery I ever saw. Was able to return into the country fourteen days after the operation, and in less than four weeks the whole chasm was filled, and the bowel grown quite down to the orifice. All that was done to this patient was to wash out the wound by means of a syringe after the action of the bowels. The parts could not be kept sweet or clean, as a perpetual oozing of fæces was taking place. This is only one example out of hundreds I have had that satisfy me that as long as putrid, filthy matters are not retained, shut up, in a wound, it will heal well and rapidly—indeed, quite as well as if all the antiseptic treatment in the world had been adopted. Some months later, I found this patient had some contraction of the anal orifice. As bougies did not seem to keep it well open I divided one side of the orifice with a knife, and by keeping a tube in for a few days all got well. Curious to relate, though so much of the rectum was taken away, it grew down, and a portion of mucous membrane protruded from the anus; I thought of removing it, but as it seemed to be of no consequence I did not do so. This patient died, having lived nearly three years.

CASE 9.—An unmarried lady, æt. 38, came to me from the country. She looked healthy and cheerful, but when her face was in repose there was a sallowness not observable when she was excited, and also an anxious, worn expression. She at once told me, in the most matter-of-fact way, that she had cancer of the rectum, that she had consulted an eminent physician in the country, and a still more eminent surgeon in London, and they had told her there was nothing for her but to endure

and die. Her friends confirmed her statement. The patient went on to say that for six months her suffering had been very great. She had almost constant pain at the bottom of the back, of a wearying, sickening character, and the paroxysms at and after defecation were almost more than she could bear. She had fought against this, and concealed it as much as possible from her friends, but her life was really unendurable. On making an examination an epithelial growth in the rectum was patent enough. It commenced about an inch and a-half from the anus, the mucous membrane nearer the anus being quite healthy. There was no affection whatever of the external parts. The zone of epithelial growth was about an inch in width, and it involved nearly the whole circumference of the bowel. My finger easily reached healthy bowel above the growth. There were no enlarged glands. The growth was readily movable in all directions except on the right side of the vagina, but I did not think this would render an operation more than ordinarily difficult—indeed, taking the whole case into consideration, I felt that it was favourable for surgical interference. I expressed this opinion to the patient, at the same time guarding against a too sanguine view of the case. I recommended that the opinion of some eminent authority should be taken without the patient saying whom she had previously seen. The gentleman she consulted endorsed my opinion. When, therefore, proper arrangements had been made, special care being taken that my excitable patient should have nothing to worry her, I performed the operation. The adhesions were more than I expected, and in dissecting away the growth from the right side of the vagina the peritoneum in Douglas's space was opened, and a coil of intestine was seen. A carbolised sponge was immediately placed against the opening. There was very moderate bleeding. I used Paquelin's cautery to separate the diseased portion of the rectum, where I found some large vessels existed; the rest I cut off with scissors. The operation took just forty-five minutes in its performance. The ether had been stopped, and the patient gave evidence of recovery from the anæsthetic by moving, but when placed in bed she was found to be still insensible. After a very few minutes the nurse who was sitting by her called my attention to her appearance, and I saw that she was very pale and slightly blue in the face. The breathing had ceased, and her pulse could not be felt. Her head was lowered and artificial respiration was at once commenced by my friend, the late Mr. Carr Jackson, and was continued by that gentleman and myself for two hours and a-half. During this period we several times thought she was dead, as immediately the artificial respiration was remitted no natural breathing took place, and the heart ceased to beat. On resuming the artificial respiration the heart feebly responded, and the face became less deadly pale. The head was all the time kept low, and my battery being obtained we were ready to use it if required. Very gradually, to our great relief, natural breathing commenced (though at first it was exceedingly shallow), and the pulse could at times be felt at the wrist.

At the end of the anxious two and a-half hours the breathing was fairly restored, and the heart beat regularly, though slowly and very feebly. At 10.30 the operation was concluded; at 4.45 she suddenly awoke to consciousness, and was able to take some milk with egg and brandy. After this she rallied, but at 11 p.m. she expressed herself as feeling very exhausted, and was restless and thirsty. Her temperature was 100.5° , and the pulse 104. She was quite warm all over, her mind was perfectly clear, and she was not in pain. She took fluid nourishment freely. On the following morning I found she had slept but little during the night, was restless, and felt general malaise with great thirst. She had passed a quantity of black urine like a strong infusion of black tea; the pulse was 99, and the temperature barely 100° . She had taken during the night plenty of fluid nourishment—Liebig's cold soup, milk with egg and brandy. There was no sickness, no abdominal tenderness, and she experienced but little pain in the wound. She was troubled with flatulence, but passed wind freely from the bowel. I removed all the sponges from the wound; it looked healthy and quite sweet. I replaced a sponge which had been steeped in a solution of salicylic acid against the spot where the peritoneum had been wounded. She was not exhausted after the dressing. During the day she improved, but at night she was very low, more restless, but not in pain. She complained of a tightness in the chest and occasional spasmodic pains in the left side. Auscultation did not detect anything wrong with the lung. She was still flatulent, but wind passed in both directions, and there was no distension of the abdomen nor tenderness on pressure. She had taken nourishment fairly. There had been no vomiting. The temperature was 100° , and the pulse 94. I was summoned hastily at 5 a.m., and found she was dead. She had taken some nourishment a few minutes before her death; she told the nurse she felt very ill, became suddenly pale, and died, forty-three hours after the operation. An *examination* was made eleven hours after death by Mr. Jackson and myself. All the organs were quite sound. There was no pneumonia nor pleurisy. The heart was small, healthy, and contracted. There was not a trace of lymph or peritonitis, and no fluid in the abdomen. The wound in Douglas's space was firmly united, and the intestine lying against it was not even congested. There was one small patch of congestion at the pyloric end of the stomach. I was very anxious about this patient from the first; the syncope and coma were grave matters, and she never thoroughly rallied after the operation. Syncope, I presume, was the immediate cause of death.

CASE 10.—A patient, æt. 52, was sent to me by Dr. Evan Evans; he had been more or less ill for fifteen months, and believed that he had piles. He was a tall, thin man, with an unhealthy-looking face; he had lost much flesh, and was not very strong. I saw outside the anus a ring of tags of skin discharging ichorous matter, and inside the anus several large internal hæmorrhoids, which were very vascular

and came readily outside when he strained. From the piles an epithelial growth extended up the rectum for at least three and a-half inches. It was adherent to the prostate gland and urethra in front, and on the right side the growth extended higher up than on the left, but I could ascertain the whole extent of the disease, and saw no insuperable difficulties to its removal. Accordingly I operated, cutting very wide of the anus in order to get rid of the external flaps of skin, and also to avoid wounding the hæmorrhoidal vessels, which I knew were large. The dorsal incision, owing to the piles, bled unusually; indeed, throughout the operation the bleeding was severe. A silver catheter passed into the bladder, and steadied by Mr. Goodsall, aided me much in the delicate dissection of the growth from the basis of the bladder and the urethra. The parts were so adherent on the right side that I made a wound in the peritoneum, but no coil of intestine came through. In dissecting the growth from the sacrum, where also it was more firmly adherent than I anticipated, I came on the meso-rectum and wounded the middle hæmorrhoidal artery, from which the rush of blood was so great that, had I not very rapidly seized it, the patient would have died on the table. The house surgeon administering the ether was immediately aware of the loss of blood, as the pulse failed. Rather over than under five inches of bowel were removed. A carbolised sponge was placed against the spot where the peritoneum was wounded, and the cavity, which was very large (looking as if the whole interior of the pelvis had been scooped out), was also filled with carbolised sponges. On the day after the operation the patient was doing well, had passed a fair night, taken his nourishment, not vomited, had a tranquil countenance, and was cheerful. The abdomen was soft and undistended; there was no pain on pressure save near the right iliac region, which was rather tender. The next day the sponges were removed, and the wound carefully syringed out with diluted Condyl's fluid. There was no sloughing, and the wound looked satisfactory. On the fourth day after the operation he was attacked with a severe rigor followed by very high temperature and sweating; symptoms of acute peritonitis set in, and he died on the fifth day. A post-mortem showed acute peritonitis all over the abdomen. Lymph was found between all the coils of the intestine, and a purulent fluid existed in the pelvis. The kidneys were not quite healthy. The patient had no serious symptom until the rigor; indeed, a few hours before he felt particularly comfortable, and I thought, on the whole, well of him. A trace of albumen had been found in this man's urine.

Is excision
to be pre-
ferred in
all cases

I would point out that there are dangers connected with the operation not to be despised, but which are much minimised by the improved method of operating already described. I would also observe that there is a tendency to

look too lightly on the danger of opening the peritoneum. In some of my cases that cavity was opened with no evil result, but in two, I have no doubt, it was the cause of death. An important question is, Do we really obtain a cure in cases of epithelioma? My modest experience would lead me to think that such a result is uncommon, and must not usually be expected. A second question is, Do we obtain much prolongation of life by the operation? I am inclined to the opinion that this question cannot be positively answered in the affirmative, although at the present time I see occasionally six patients who have survived the operation from twelve to six years. Epithelioma in many cases advances very slowly; I have had a considerable number of patients who have lived four years and upwards from the first appearance of the symptoms, no operation having been undertaken. If the disease be near the anus, not extending say more than two inches up the bowel, I should not hesitate to excise it, especially if the cancer be of slow growth; but should it be rapid and widely spreading, excision is perfectly useless. In the large majority of cases, the disease commences at more than two inches from the anus, and extends for two or three inches higher up. These cases almost always do badly, and it therefore follows that the number of patients who can be benefited by excision of the disease is comparatively small.

I am inclined to think that some, at all events, of the published cures were not really cases of cancer, but lupoid or other ulcerations. There is no doubt that the excision of cancerous growth relieves the patient of great pain; but against even this the after-conditions must be placed.

In those cases in which the external sphincter is all removed, there is always incontinence of flatus and fæces. Again, the contraction following the operation is often so considerable as to become an obstacle to the passage of the excretions, and then, as in some of my cases, divisions may be called for, together with the more or less continuous use

of tubes. Finally, is the operation one to be undertaken in all cases heedless of the extent of the disease, the parts involved, or the age and condition of the patient, as some surgeons practically assert? I say by no means. The cases must be carefully selected if any lasting success is to be obtained.



CHAPTER XXVI.

INGUINAL COLOTOMY.

THE more I watch the results of lumbar colotomy, the more confident I feel that inguinal colotomy is the better operation in the majority of cases—if special attention be paid to my method of preventing fæces passing below the artificial anus—and I submit, it may be performed with greater advantage to the patient.

Inguinal
colotomy

It seems to be a custom in cases of obstruction involving the rectum or sigmoid flexure, to open the descending colon in the loin without pausing to consider whether the risk and discomfort are increased or diminished by the performance of the operation in the inguinal region.

Now that surgery, through perfect cleanliness, has made such gigantic strides, and the peritoneum is no longer held in awe as in former days, the opening of that serous cavity, if due care be taken, does not to any great extent increase the danger of the operation, and is certainly not more harmful to the patient than the disturbance of cellular tissue and parts around, so frequently incurred when there is difficulty in finding the bowel in lumbar colotomy.

I propose first to mention the various methods by which inguinal colotomy has been performed, then the way I operate, how in the early operations I in part failed to prevent fæces passing below the artificial opening, and in what manner this has been effectually remedied in the later cases.

Various
methods of
performing
it

Luke commenced the operation by making a perpendicular incision in the groin four inches long, and just outside the course of the epigastric artery. The sigmoid flexure was sought for and pulled into the wound, the gut being opened at once. This method has long ago passed out of

Luke's

use, for there are no advantages to be gained. The opening in the gut may be near the disease, and if the sigmoid flexure has a short meso-colon, there is some difficulty in bringing the intestine to the surface; again, the immediate opening of the gut increases the risk of extravasation of fæces into the peritoneal cavity.

Reeves's

Reeves makes the usual incision employed in performing inguinal colotomy—namely, one an inch above Poupart's ligament, extending from a point just external to the abdominal ring to a little below the anterior superior spine of the ilium, the incision being between three and four inches in length. Sutures are passed through the gut to fasten it to the skin. When making experiments as to where and what incision is the best, I found the above described not so good as one made just internal to the anterior superior spine, as I shall presently show. Putting sutures through the gut must increase the risks of the operation, for gas and sometimes fæces are extravasated through the punctures made by the needle and may make their way into the peritoneal cavity.

Studsgard's

Studsgard performs the operation in the usual way, but takes these precautions in suturing in order that a good spur may be obtained. To use his own words: 'The lowest sutures are introduced into the intestine in such a way that a great part in front lies free between the two corresponding sutures, while the posterior ones are passed through the bowel close to one another in the neighbourhood of the mesentery; in this way a kind of spur is left at the lower angle.' Here again the needles are passed through the gut, and consequently some risk is incurred.

Madeling's

Madeling divides the intestine and stitches the upper end to the wound while he sews up the lower end of the divided gut and allows it to drop into the abdominal cavity. This is a risky proceeding, for while the intestine is being sewn there is a danger of fæces escaping, especially if the intestine be at all distended, or the fæces liquid. It is, moreover, essential that the fæces accumulated in the lower portion be removed before sewing it up, for if allowed to remain, the cancerous growth prevents them passing down-

wards, ulceration will ensue, and the discharge find its way into the peritoneal cavity. Unknown to the operator, the intestine may be twisted when drawn up into the wound, and if this is not discovered, the upper, instead of the lower, end of the gut may be closed and returned, the lower alone being stitched to the abdominal wall; no relief is given to the obstruction, and death ensues.

Verneuil draws up the intestine, divides it and attaches the two ends to the skin, so as to make a double-barrelled opening. By this means the motion in the intestine below can be washed out, or discharges itself in a few days when peristaltic action comes on. In those cases of inguinal colotomy in which no spur is formed by the operation, it has been suggested that a piece of mucous membrane should be dissected up from the gut and stitched to the skin, so as to block the passage of fæces from passing below. I do not know that this has been done, nor do I think it would be likely to succeed if tried. Verneuil's

The first time I performed the operation of inguinal colotomy was on a patient who gave me little chance of choice between inguinal or lumbar, as will be seen (Case 1), and therefore, as I had never seen the operation performed, I did not undertake it until I had made careful investigations as to the position and possibility of finding the sigmoid flexure.

The manner in which I now perform this operation is by making an incision two inches in length, about one inch inside the anterior superior spine of the ilium and parallel with Poupart's ligament. The abdominal muscles are divided and bleeding stopped; on reaching the peritoneum, a small incision is made into it and the cut edges taken hold of with clip-forceps and held up by the assistant. Scissors are then used to cut through the peritoneum to the size of the wound. The reason I clip the peritoneum is to prevent it slipping or being pushed away; also when held up, it stops any oozing of blood from the cut muscles passing into the abdomen. A flat sponge, with a string attached to prevent it being lost in the belly, is next introduced to keep the intestines out of the way and Allingham jun.'s

to catch any blood that might otherwise drain into the abdomen while the parietal peritoneum is being carefully sewn with interrupted fine carbolised silk or catgut to the skin all round. By joining the skin and peritoneum in this way, rapid healing takes place, and the chances of discharge from the muscles finding its way into the peritoneal cavity are lessened. The sponge being removed, a search is then made for the sigmoid flexure; in three of the cases it bulged into the wound and was easily recognised by the longitudinal bands and appendices epiploïcæ, but in Cases 3, 4, and 7 the small intestine presented itself, and in the others the great omentum. When the large intestine does not present itself, I pass my first finger into the abdomen, sliding it over the iliacus muscle until I arrive at the intestine, which I hook up to the opening with my finger and thumb. If this manœuvre fails to find the gut, I search towards the sacrum, feel for the rectum, and trace the gut up; should this not succeed, the finger must be passed upwards towards the kidney and the descending colon felt and traced downwards.

Method of
finding
large intestine

I may here mention that the large intestine has a very different feel from the small, being much firmer and thicker, and the ridges formed by the longitudinal muscular bands make it easy to distinguish it from the small intestine.

Treatment
of gut

When the gut is found and brought to the surface, I look for a piece with a sufficient mesentery, by passing the gut through the fingers; of course this can only be done if the disease is in the rectum or the lower part of the sigmoid flexure. Generally the part of the sigmoid first pulled up has quite sufficient mesentery. If it is fixed to the back of the abdomen, there being a very short mesentery, I pull up as much of the gut as possible and stitch it to the wound, so that the intestine when opened (some days later) looks like the orifices of a double-barrelled gun (fig. 50). This appearance is obtained by introducing the suture in the following way: A needle threaded with carbolised silk is passed through the mesentery close to the intestine, as represented in diagram 48 *b*, then through the abdominal wall on both sides at the middle of the wound,

and the sutures are tied up tight. If there is little or no sigmoid meso-colon I am obliged to pass the suture through the muscular and serous coats of the gut at its posterior part. Leaving a fair-sized knuckle of loose gut outside the wound, I next sew the gut all round to the skin, passing the thread only through the muscular and serous coats. This is done very carefully, so as not to prick the mucous coat (*see* diagram 48, *x*). Antiseptic dressings are then applied, pads being placed over the opening, so that if there is vomiting the gut may not break away from the sutures. If there are no bad symptoms, as vomiting, great distension, or colic, &c., the gut is not opened for

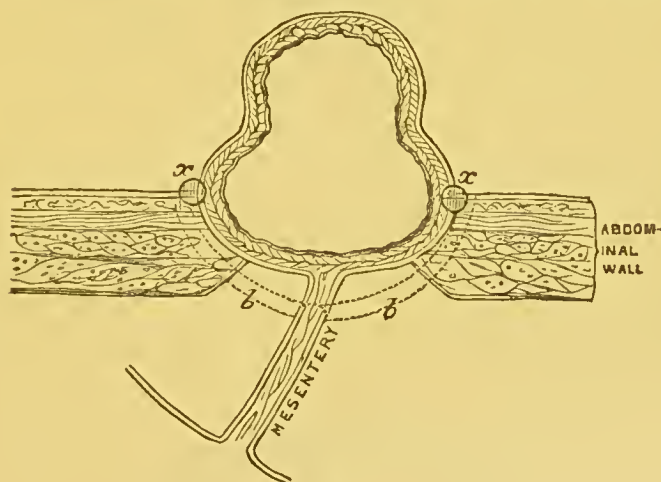


FIG. 48.

two or three days; if any serious signs were to appear, I should open the intestine within twelve hours.

When the dressings are removed the exposed intestine is found to be firmly fixed by lymph to the abdominal wall, and, in fact, completely covered with it.

To open the gut I use scissors, cutting the intestine from above downwards to the extent of about an inch and a-half. Through the incision can be seen two orifices (figs. 49 and 50), separated by a well-formed spur. I used to put the mesenteric sutures through the skin nearer the lower angle of the wound; this was done because I thought that the lower opening was only required to clean out the rectum

Mode of
opening
gut

or allow any retained faecal matter or discharge to come up, whereas the upper orifice had to be kept patent and large for the new anus. The reason I now put the mesenteric sutures through the middle of the wound is, because in four cases in which I have seen this operation done, the gut when fixed up to the surface was twisted, so that the bowels

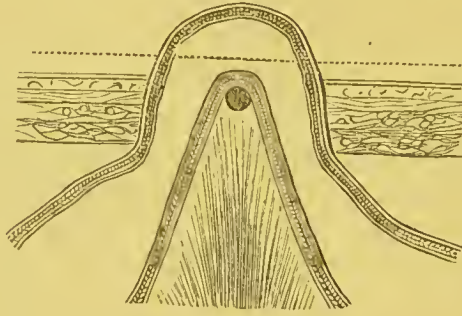


FIG. 49.

acted through the lower of the two openings, the upper one being the part continuous with the rectum.

Removal of
walls of gut

There is generally a large quantity of gut, or rather walls of the gut, on both sides of the incision. In my later cases I have always thoroughly removed this by cutting it away until the edge of the gut is nearly on a level with the

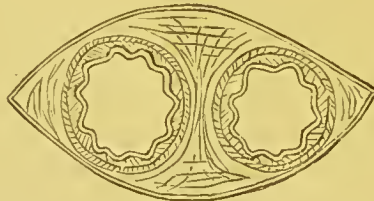


FIG. 50.

skin (diagram 49, portion above dotted line is removed). If this is not done, there is too great a prominence, for although the walls shrink to a certain extent, they do not shrink sufficiently, so I deem it advisable to remove them. The bleeding is trifling, and the vessels, if clipped for about five minutes, cease bleeding. It is worthy of notice that there is no pain whatever experienced when cutting away or opening the gut. In Cases 5 and 6 I removed about one inch of the wall on both sides without the patient having

the slightest idea of what was being done. It is important to fasten the gut well outside the wound, for it is by so doing that a good spur is obtained; if the spur fails, in my opinion, the operation is itself a failure, and the patient, although relieved from distension, is still constantly troubled with motion passing below the artificial opening, irritating the growth and causing pain. If the details above-mentioned are attended to, and especial care taken not to pass the needle into the intestine, there is scarcely any chance of peritonitis following the operation.

CASE 1.—S. C—— gave the following history. After the birth of a child, eleven years before, the perineum was ruptured; this was operated upon, but without success. Two years later she attended a hospital, suffering at that time with stricture of the rectum and recto-vaginal fistula. She had bougies passed, and the fistula operated upon; this was followed by pyæmia, and she remained in a very critical condition for many months. In 1884, as she suffered so much discomfort from the rectal trouble, left lumbar colotomy was performed, and the next day it was found that the stomach had been inadvertently opened instead of the large intestine; the surgeon sewed up the opening, and the wound healed perfectly. In the early part of 1886 I saw her, and found her in the following condition: In the rectum, about four inches up, was a hard cicatricial stricture, through which the tip of the index finger would barely pass; there was also a recto-vaginal fistula, easily admitting two fingers, extensive retroversion and prolapse of the uterus; when the bowels acted, the whole uterus and bladder appeared outside. The left loin contained a large hernia, the stomach bulging into a weak part of the abdominal wall formed by the cicatrix. As the patient was in great misery, I determined to open the sigmoid flexure in the groin, for evidently the colon was not in the loin; moreover, a further search in that region was prevented by the herniated stomach. I therefore performed the operation already described, under antiseptic precautions, the operation taking fifty minutes. There was some difficulty in finding the sigmoid, as it was collapsed and very movable, but, by keeping my finger close to the iliacus and towards the rectum, I soon felt and brought the gut to the surface. She improved steadily after the operation, the temperature on the first night being 99° F., the next morning normal, and from that time remained absolutely normal. As there was no pain or abdominal discomfort, and as everything went well, I did not remove the dressings until two days after the operation, when I found the exposed piece of intestine covered with lymph; in fact, the lymph had found its way into the meshes of the gauze, and firmly fixed it to the gut; this had to be gently separated. As there was no abdominal discomfort, the

Cases

dressings were again applied, but the following day—namely, three days after operation—the patient was uncomfortable, so I at once removed the dressings and opened the intestine. The intestine was firmly united by lymph to the skin. The next day the bowels acted well. In ten days all the exposed sutures had been removed, and the patient was up, with only a small granulating surface to heal. Sixteen days after the operation she went to the country, wearing a truss. I saw her a few weeks ago; she said she was very comfortable; the bowels acted well by the artificial opening, but occasionally some motion passed below; she had entirely lost the straining pain and discomfort she formerly suffered from.

This case, to my mind, is not perfect, for motion occasionally passes across the imperfect spur to the lower part of the gut. This is explained in that I did not sufficiently recognise the importance of a well-marked spur, and in the operation did not introduce the sutures through the sigmoid meso-colon as I now do, nor was the bowel brought well out of the wound, and fixed there in order that it might adhere out of the opening in the abdominal wall.

CASE 2.—A. H——, aged 50, always had good health until fourteen months previous to my seeing her, when she began to suffer from piles, and was treated for them, but received no benefit. On seeing her she complained of diarrhoea, mucous discharge, occasional losses of blood by the bowel, and very great pain. In the rectum, about four inches up, could be felt a hard, irregular epitheliomatous mass, involving the recto-vaginal septum and the right wall of the gut; it bled on the slightest touch, and was very adherent to the tissues around; the lumen of the intestine was considerably narrowed, preventing the passage of the finger through the growth.

On January 16, 1887, inguinal colotomy was performed; the intestine instantly bulged into the wound, and was sutured in the following manner. At the upper angle of the wound, sutures were introduced through the muscular and serous coats at the anterior aspect of the gut, but at the lower angle they were passed through the muscular and serous coats at the posterior or mesenteric border of the gut; by this means I thought I should get sufficient spur, and certainly this was a great improvement on the former case, for fæces only occasionally passed below, and that was after purgatives were given. The temperature on the night of the operation rose to 100°, returning to normal the next morning, and after that remained normal throughout; no pain, only a heavy sensation about the wound; pulse quiet. —January 17. The dressings were removed, and, as in the former case, the intestine was covered with lymph. I opened it to the extent

of about one inch.—January 19. An aperient was administered and the bowels acted well through the artificial anus, a few hard masses of old fæces passing up from below.—January 20. The patient had retention of urine; the wound broke down slightly at one part.—February 3. The wound was nearly healed, and the patient quite comfortable as regards the colotomy; but the mass in the rectum had rapidly grown, causing much pain and bladder-trouble.—February 5. I nicked the bowel upwards, as it seemed inclined to contract and force fæces towards the anus.—February 15. She went to the country, the bowels acting by the artificial anus; but the disease in the rectum was rapidly extending, and had ulcerated through the recto-vaginal septum. I saw her some months after, and found that the artificial anus had been allowed to contract, and some of the motion passed below; but as a large mass of cancer had sloughed away, and there was no obstruction or pain caused by the passage of fæces, I did not think it advisable to enlarge the orifice again. The patient died six months after the operation.

This case, again, did not quite satisfy me, for although at first fæces rarely passed below the spur, they sometimes did. I felt the operation was still not perfect, and would not be so until two separate mouths were made in the wound, that is to say, the double-barrelled gun appearance obtained.

CASE 3.—E. C——, aged 43, single. About a year ago her bowel trouble commenced with diarrhœa, straining, passing ribbon-shaped motions, occasional loss of blood, and considerable pain. For this Dr. T. B. Crosby was consulted, who found malignant disease high up in the rectum. When I saw her the growth had greatly increased. She had an anxious expression, complained of great pain, with an offensive discharge from the bowel.

On examination, a hard epitheliomatous tumour could be felt involving the entire circumference of the gut; the growth so blocked the rectum as only to admit a No. 12 catheter. The abdomen was distended, and hard masses were felt along the course of the colon. On April 6, 1887, I performed inguinal colotomy. Antiseptics were used, the operation taking one hour. The gut was considerably distended with hard fæcal matter; this I pushed up, so that it might be out of the way, and allowed the suturing to be easily done. The same night she vomited, temperature being subnormal, tongue moist, pulse 92. The urine had to be drawn off, and opium was given. There was some discharge through the dressings, but, considering the condition of the patient, I did not deem it wise to disturb her by dressing the wound that night.—April 7. Had a good night, and took beef-tea and milk well, the patient being better, and the temperature normal. I removed the dressings and found, as in former cases, the gut firmly fixed by

lymph to the wound. As the intestine and abdomen generally was distended, I opened the gut; this was followed by the escape of much flatus, which afforded great relief.—April 8. A hard piece of motion was blocking up the upper opening; this I removed, and much solid faecal matter was passed during the day. The wound was dressed with carbolised wool.—April 9. The gut was rather prominent and cedematous; but as I thought this would subside I did not remove any of the prominent walls, and there I did wrong, for although the oedema went in a day or two, a prominence remained, but not sufficient in any way to inconvenience her.—April 10. All sutures were removed and a purgative given; the motion passed from the artificial anus both from above and upwards from below.—April 21. She was quite well and very comfortable; no pain in the rectum; the temperature, as in former cases, had been normal all through; the issue was perfect, no motion whatever finding its way below.

The only drawback to perfection was that in this case the walls of the intestine were not removed, and so the gut was a little more prominent than desirable.

CASE 4.—T. J——, æt. 59, married, healthy-looking man, suffered from piles eighteen months ago, from which he dated the commencement of his illness. The last few months lost flesh rapidly, and complained of great difficulty in getting the bowels to act; passed mucus; frequent diarrhoea, with the passage of flattened, ill-formed motions. On examination, a hard rugged growth could be felt high up in the bowel, only just within the reach of the finger; this surrounded the gut, and was firmly fixed; abdomen distended.—April 22. I opened the sigmoid in the groin, as described; found the gut easily. In the evening the temperature rose to 99·4°, but there was no pain or discomfort of any kind. He slept well, passed water, and took all the nourishment given him.—April 25. I opened the gut and removed the walls; the spur was well-formed and prominent.—April 26. A purgative was given, but did not act, and on introducing my finger into the upper orifice, I found a hard piece of motion blocking the passage; this I broke down. I then passed my finger into the lower orifice, and found it filled with hardened feces, but left them alone.—April 27. Another purgative was given, which acted, causing great pain of a colicky nature, making him faint. I went at once and found the patient very bad, pale, sweating, with a feeble pulse, and was naturally afraid some adhesion had given way. Hot flannels were applied to the abdomen, and opium administered. In the evening the temperature went up to 101°, but at 12 o'clock returned to normal, and he was comfortable, the bowels having acted very well; after this he got rapidly well. The motion accumulated in the lower part of the gut passed chiefly upwards, but some was passed by the anus.—April 28. All the sutures had been removed and the wound was dressed with zinc ointment, for a small

part had broken down at the upper part.—April 30. I examined the orifices with my finger again, and removed a piece of hard motion from the lower part of the intestine.—May 6. Returned to his home, the wound nearly healed, and the case, to my idea, perfect.—June 16. As the patient had some difficulty in getting the bowels to act, I saw him again. He had gained flesh, and no fæces passed below the spur. The rectum was completely blocked up. On examining the upper orifice I discovered a polypus with a pedicle four inches long; this I ligated and removed, and after that the bowels acted well. He died eleven months after the operation, but from then to the time of his death had suffered little or no pain from the cancer.

CASE 5.—B. J——, æt. 66, always had good health until ten years before, when she had inflammation of the bowels and was ill for about three months. Two years before the operation her rectal trouble commenced with what she called an attack of piles and stoppage of the bowel. She attended as an out-patient at a hospital for some time, and then was advised to have colotomy performed, but declined to have it done. When I saw her her bowels had not acted for a week, and for some time previously the motion had passed only by the vagina. On examination a mass of cancer was found filling up the rectum and protruding outside the anus; the vaginal wall was involved, and a large opening existed in the recto-vaginal septum; the buttocks were hard and infiltrated with cancer, the abdomen distended and filled with hardened fæces. I performed inguinal colotomy on May 31, 1887; there was some difficulty in finding the sigmoid flexure; but by passing the finger upwards the kidney and colon were easily felt. I traced the colon down until I arrived at the sigmoid and pulled it into the wound. This was sutured as described, and the wound dressed with antiseptic gauze. When seen the same night she complained of some pain about the wound, but there was no abnormal tenderness. Tongue moist, no vomiting; brandy three ounces, and opium one grain, to be taken every four hours if necessary.—June 1. She vomited twice during the night, slept fairly well; abdomen soft, no tenderness; pulse 112; tongue moist, but dirty; temperature 100°. —June 2. Aspect good, pulse 90, temperature 99°. The dressings were removed, and as she complained of abdominal discomfort, the intestine was opened and the prominent walls of the gut removed; three vessels required clipping. This proceeding, as in the other cases, gave no pain, the patient not having the slightest idea of what was being done. The double-barrelled appearance was complete.—June 3. She had a slight attack of bronchitis, temperature 101°, but the wound looked well.—June 4. Bowels acted well; there was some œdema of the gut, and the edges of the wound looked a little sloughy; cough still rather bad.—June 7. Some of the wound had broken down, so all the sutures were removed; patient rather feeble; more stimulants were ordered.—June 12. She complained of pain in the rectum, but

no fæces passed beyond the spur, which was perfect. The skin around the wound had separated from the gut, but there was no burrowing or suppuration amongst the muscles; cough better; temperature at night 100°, morning normal. She took food well, but suffered considerable pain from the extensive cancer in the rectum and buttocks.—June 20. Wound sluggish, the patient comfortable, the bowels acting sufficiently by the artificial anus.—June 30. Wound not healing, but quite quiet; no burrowing; eating and sleeping well, but evidently getting weaker. Cancer rapidly increasing.—July 16. The wound looked healthy, and was nearly healed. She had little or no pain in the rectum. Getting much emaciated; temperature every night rose to 100°, but became normal in the morning.—July 30. Wound quite healed; little pain. She was very comfortable; returned to the country, and now (April 21, 1888) is still alive and looks much better.

CASE 6.—F. C——, æt. 45. About twelve months ago he began to complain of pain and discomfort in the lower part of his pelvis and rectum. He rapidly lost flesh, and was constantly troubled with diarrhœa, accompanied with losses of blood and mucus by the rectum. An examination was made several times, but nothing could be felt in the bowel. When I saw him he had a very malignant aspect, was greatly emaciated, and complained of very severe pain in the rectum, sacral region, and down the legs. There was an offensive discharge from the bowel and persistent diarrhœa. On examination by the rectum, a hard mass could, with great difficulty, be felt high up in the pelvis; but, as it was impossible to make out the nature of the tumour from the pain occasioned by the exploration, ether was given and the sphincter dilated; then, with the hand pushed deeply between the buttocks, the hard tumour was found to be epithelial cancer, involving the entire gut, the greater mass being situated in the anterior wall, and the tip of the finger could just feel a hard crater-like opening in the upper part of the growth into which the fæces passed. As he suffered severe pain, and was greatly worried by the diarrhœa, I thought inguinal colotomy might relieve him, especially as he was getting bladder troubles. When the operation was proposed to him he readily accepted any chance that might relieve him of his suffering. Accordingly, on July 14, I performed inguinal colotomy, following out all the details I think necessary. The gut was easily found by tracing it down from the colon, and stitched to the wound; that night the temperature rose to 100°, but he slept well, only occasionally complaining of tightness about the abdomen. No vomiting; tongue moist; pulse 96; no tenderness or distension of the belly.—July 15. Had a good night, after an injection of morphine. Took liquid food well. As the abdomen was distended and the tightness still complained of, I removed the dressings, and opened the intestine (thirty-six hours after operation), cutting away the walls on a level with the wound. Spur complete and well-formed. Much wind passed, affording great

relief. Temperature 99°, pulse 88.—July 16. Much more comfortable, but still had pain in the back. The bowels had not acted by the artificial anus; some motion passed by the rectum. Wound quite quiet; the intestine-wall glued by lymph to the parts around.—July 17. Bowels acted with no pain. Took food well; temperature 99°; wound very healthy; no suppuration; slight œdema of bowel.—July 19. Much pain in passing water; evidently the growth had extended into the bladder, for he passed blood and some shreds of tissue. Temperature 99°; ate well; bowels acted; wound healing, no signs of inflammation.—July 30. Wound healed. The pain in the rectum still bad; no fæces passed below. Some pain in the bladder after passing water; gained flesh.—August 6. Went home relieved of the severe pain he suffered prior to the operation, but died three months later.

CASE 7.—Sarah C——, æt. 54, married. Her rectal trouble began with pain and the occasional passage of blood. This went on some time before she consulted her medical man, who at once discovered that she had malignant disease of the rectum, commencing about three inches up. At first she was ordered laxatives, Chian turpentine, and a good nutritious diet. Four months after the treatment was commenced I saw her and found the rectum in the following condition—viz. about one inch up the bowel was a large, hard, ragged sore. This extended all round the bowel and greatly involved the recto-vaginal septum. As she complained of great difficulty in getting the bowels to act, and was in constant pain from the accumulation of motion in the growth, I strongly advised inguinal colotomy. The operation was performed in the way I have described, there being no difficulty in finding the gut, which was brought up into the wound and fixed well outside.

The same night the temperature rose to 99°, there was no abdominal tenderness or distension, and she had suffered very little pain.

The next morning the temperature was normal, and remained so throughout the treatment. On the second day after the operation I removed the dressing, and opened the gut, cutting away large portions of the wall. There was a well-formed spur. There is no necessity to enter into any further details, as she returned to her home in a fortnight from the day of the operation perfectly well, and entirely freed from the pain in the bowel she had previously suffered.

This case, as well as many others I might relate, excellently illustrates the great advantage of obtaining a good spur and so entirely diverting the fæces, as this relieves the growth from one of its constant sources of irritation.

There is no need to cite any more cases. I have myself performed eight, and have never had any bad symptoms following the operation. I have also had the opportunity of seeing about as many more under the care of other

surgeons, and have watched the after-history. In all a perfectly satisfactory result was obtained, no patients dying from the effects of the operation.

Advantages of
inguinal
over
lumbar
colotomy

I now propose to put before my readers why I consider the inguinal operation preferable to the lumbar. The position for operation in the former is undoubtedly better, both for the patient and the operator; for if the abdomen is distended, the side position is bad for the administration of anæsthetics; whereas in the inguinal operation, with the patient on his back, and the shoulders slightly raised, the impediment to respiration is diminished. In the side position the intestine has a tendency to fall away from the loin, and this is sure to happen if there is a well-marked mesentery, thus increasing the difficulty in finding the gut, and necessitating a larger incision, the introduction of the hand into the wound, and therefore considerable disturbance of the cellular tissue about the loin. But in inguinal colotomy, owing to the position of the patient, the sigmoid flexure will not fall away from the opening, in spite of its having a decided meso-colon.

Some naturally say the sigmoid flexure is more movable and has a better formed mesentery than the colon, and is, therefore, more difficult to find. This idea must be at once dismissed; in inguinal colotomy the peritoneal cavity is opened, and, as was mentioned when describing the operation, the incision is made about one inch internal to the anterior superior spine, being much higher than is usual; for after making many incisions in various positions I find this to be the best, because it is near the juncture of the sigmoid flexure and the colon—a generally fairly fixed point. On examining, with the kind assistance of Dr. Sisley and Mr. Des Vœux, at St. George's Hospital, more than 500 post-mortem cases, it was found that the rectum was situated on the right side of the pelvis in only two cases, and that in both these the sigmoid at the junction with the colon was firmly fixed in its normal position, and in most subjects, when the sigmoid flexure is freely movable, the descending colon, where it becomes sigmoid, is in its normal position. Again, as the peritoneal cavity is open, owing to the incision

I use, the following points about the abdominal cavity can be felt: if the finger is passed upwards, the last two ribs, the crest of the ilium, and the lower part of the kidney; if downwards, towards the true pelvis, the first part of the rectum. Exploring towards the middle line, the last three lumbar vertebræ and the aorta can be easily distinguished. In all the subjects I have operated upon—at least twenty—I found no difficulty in finding the sigmoid by tracing it down from the colon or up from the rectum, even if it had a wide meso-colon, and am sure that the sigmoid flexure is quite as easily found in this position as the colon is in the loin.

Another objection raised against inguinal colotomy is, that the fæces pass below the artificial anus more frequently than they do in lumbar colotomy. This is not so if only care be taken to obtain a good spur.

It is said that in inguinal colotomy the opening in the gut is not high enough or far enough from the diseased part. This depends on the operator, for I have over and over again tested this by first performing inguinal colotomy, and before fixing the sigmoid colon, passed it through my fingers so as to reach the highest point that could be drawn into the wound and opened. I next turned the subject on to its right side, and performed left lumbar colotomy, and stitched the gut to the loin; then opened the abdomen and measured the piece of gut between the two fixed points, with this result—that in the majority of cases there was only four inches of intestine between the two openings. It is rare for malignant disease to attack the sigmoid flexure; for, on looking through the post-mortem records of St. George's Hospital from 1848 to 1887, in all the cases the rectum was the part diseased. In those rare cases in which the sigmoid is involved, it is only at the lower part, at its junction with the rectum.

After inguinal colotomy, I have noticed there is less constitutional disturbance, for in only one of my cases was the temperature high after the second day. There is little or no suppuration, the wound healing rapidly, whereas in lumbar colotomy suppuration is not infrequent about the muscles and cellular tissue of the back. So often is this so

that it is deemed advisable by some to put a drainage-tube through the skin from behind into the wound.

Most important points in operating

The tendency for the opening to contract after inguinal colotomy is not greater, if the bowel is well stitched up and the opening attended to by the occasional passage of the finger, which can be more easily done by the patient when the opening is in front than in the loin. For the same reason, the opening being in front instead of in the loin, the patient is better able to attend to and keep himself clean.

I do not place much reliance on statistics which show mortality is greater after inguinal than lumbar colotomy ; for I think that if the method I suggest of performing inguinal colotomy is more frequently adopted, and all the details carefully attended to, the statistics of this operation will be much improved, and other parts of the intestinal tract less frequently opened by mistake.

I will now recapitulate the chief points of the operation : extreme cleanliness ; as small an incision as possible in the abdominal wall—never longer than two inches ; the making of a good spur, and the cutting away to the skin-level of the walls of the gut when it is opened.

I need hardly say that I have not arrived at the above conclusions without making many experiments, and giving the subject most careful study and thought ; but my readers must not imagine that I think this operation will entirely supersede lumbar colotomy ; for in those cases in which the patient has been left too long—namely, when the abdomen is tremendously distended, necessitating immediate opening of the intestine—I certainly consider the lumbar operation the safer.

CHAPTER XXVII.

LUMBAR COLOTOMY, WITH AN EXPLANATION OF THE CAUSES OF FAILURE IN FINDING THE COLON, AND HOW THEY MAY BE OBVIATED.

THE method of opening the colon generally adopted is known as Amussat's, and was advocated by that surgeon in his treatise published in 1839, 'On the Possibility of Establishing an Artificial Anus in the Lumbar Region.' In the adult I think there can be no doubt that Amussat's is the best procedure.

By attention to certain rules, lumbar colotomy will not be found very difficult, but the not infrequent occurrence of misadventures induces in my mind the belief that many surgeons are not yet sufficiently alive to the necessity for considerable precision in the performance of this operation, more especially when the bowel is undistended.

The directions usually afforded in works on surgery lack the element of precision, which I think indispensable.

Many surgeons commence the operation of lumbar colotomy under the impression that it may be impossible to find the colon, and almost all of us have seen the best operators experience difficulties and even failures in finding the gut. Cases, too, have been reported in which the small intestine has been opened by mistake. Knowing this, and having read Mr. C. B. Lockwood's interesting pamphlet on the development of the colon and the abnormal positions it may take up, it occurred to me to try and find out these causes of failure, and, what is more important, the methods by which they may be overcome. All will agree that unless one of the longitudinal muscular bands (which are invariably and only found in the large intestine) be seen, the intestine should not be opened from the loin. These bands are

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jun.
as to causes
of failure
in finding
the colon

described as being situated, one on the anterior surface, another along the inner part, and the third at the posterior aspect of the gut. It is this posterior band that is looked for, and generally supposed to be seen when searching for the bowel in lumbar colotomy. It is thought by some authorities that these bands can be easily detected without opening the peritoneum, but this is not so, except in a very few cases. For I find, from an examination and dissection of over 100 ascending and descending colons, that the bands are always more easily and distinctly seen when they are covered by the peritoneum, which makes them hard, prominent, and shiny; whereas, when the peritoneum is stripped off them these characteristics are lost. I admit that in eight cases out of the hundred examined, one or two of these bands could be seen, but not very distinctly, on the posterior part of the intestine, although they were uncovered by peritoneum. When the peritoneum only covers about $\frac{1}{2}$ or $\frac{2}{3}$ of the circumference of the gut, it is generally reflected off the gut at the longitudinal bands on to the walls of the belly. Thus, unless the peritoneum is stripped off, the bands are not visible. If an attempt is made to expose these longitudinal fibres the peritoneum, owing to its being so firmly adherent to them, is frequently torn, and the abdominal cavity opened, perhaps unknown to the operator.

It is argued in favour of lumbar colotomy, that the large intestine can be reached without opening the abdominal cavity. This, of course, is possible. Yet it is much more important to make absolutely certain that the large intestine is being opened by first seeing the longitudinal bands. This, from the anatomical points I have mentioned, can only be done by opening the peritoneum. Moreover, I propose to prove that in this way only (in most cases) can the large intestine be found with certainty. I am strengthened in these conclusions by three cases in which I operated on the right side of the dead subject, where it afterwards appeared that, if I had not looked carefully for the longitudinal bands, the descending portion of the duodenum would have been opened, instead of the large intestine. This occasionally happens when operating on the living.

I once attempted to open the ascending colon, and after a most careful search I failed to find it, but in mistake opened the duodenum, as it embraces the head of the pancreas. I like to mention this case to show how in difficult cases a practised colotomist may go astray. This patient had a very enlarged liver, and was in the habit of tight-lacing, so the liver, being pressed downwards, carried the ascending and transverse colon diagonally to the left side, and the post-mortem examination showed that it was next to impossible to reach the ascending colon from my incision. Four hours after the operation I knew what I had done, as a large and constant flow of bile took place from the wound, she vomited frequently, could take no nourishment, and died on the third day.

Allingham
sen.'s case

Before and since that operation I have opened the ascending colon and found no particular difficulty, but there is no doubt that the ascending colon is more liable to be displaced than the descending. I do not in any way wish to extenuate my error in the case; at the time I grieved seriously over it, and I have never forgotten it. I always think I ought to have made a more careful examination, and to have found that the liver was enlarged, and came as low down as the crest of the ilium, and so was almost certain to push the ascending colon out of place; further, I now know I ought to have introduced my hand into the abdomen and so found the gut.

Some years ago my father came to the conclusion, after careful investigation of more than 50 dissections, that the best incision, from which the colon could be found, was one with its centre quite half an inch posterior to midway between the anterior superior and posterior superior spine of the ilium, and midway between the last rib and the crest of the ilium. This incision should be limited in length to between two and three inches, for this compels the operator to cut down exactly to the position in which the colon generally lies; whereas, if, as is frequently the case, the length of the incision is five or six inches, the operator runs the risk of missing the gut. Moreover, another advantage of the small incision is that afterwards there is no prolapse of the gut,

Position for
external
incision

and very considerable sphincter power is retained. For it is obvious that, if a large wound is made, which does not heal by first intention at the anterior and posterior part, a weak cicatrix is left in the abdominal wall, and there is consequently a loss of muscular power over the new anus.

Statistics
as to fre-
quency of
mesentery

I will now consider the various positions which the right and left colons may occupy with regard to their peritoneal covering.

The general position (as shown in diagram 51) is where

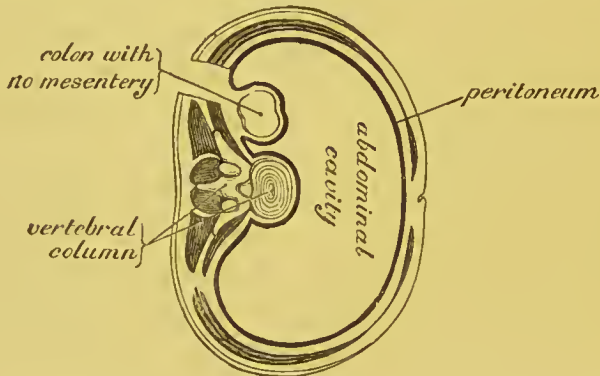


FIG. 51.

the peritoneum only covers half or two-thirds of the circumference of the gut, leaving the posterior part uncovered, with the intestine bound down to the loin. This, according to Mr. Treves, is found to be the position in

74 cases out of 100 on the *right* side,
and 64 cases out of 100 on the *left* side.

My observations, assisted by Mr. Stewart Pollock and Dr. Penrose at St. George's Hospital, show

11 cases out of 60 on the *right* side,
10 cases out of 60 on the *left* side ;

thus, by taking the percentage,

$18\frac{1}{3}$ cases out of 100 on the *right* side,
 $16\frac{2}{3}$ cases out of 100 on the *left* side.

From this it would appear that the position above described is less usual than is popularly supposed. With the intestine in this state, and if a longitudinal muscular band be seen, which must be uncovered by the peritoneum, all should

go well, and there is little or no difficulty in operating. But when no bands can be seen, owing to the peritoneum covering them, the best distinction between large and small intestines is wanting; therefore, knowing that the small intestine is frequently exposed by opening the peritoneum unwittingly, I consider that it is much more advisable to open the peritoneum *intentionally* and search for a piece of intestine with longitudinal bands, than to run the risk of opening the *small* intestine under the impression that the peritoneum has never been opened at all and that it is the *large* intestine with which you are dealing.

In diagram 52 the colon is represented, entirely sur-

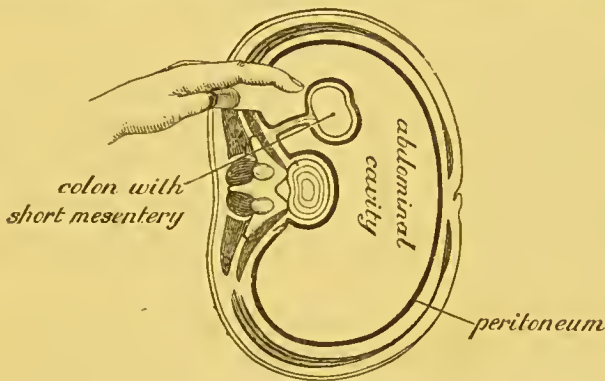


FIG. 52.

rounded by firmly adherent peritoneum, and having a comparatively short mesentery, and in such a condition that it is absolutely impossible to reach it, or to see the longitudinal bands, without first opening the peritoneal cavity.

The ascending and descending colons were found to have a mesentery of varying length, according to Mr. Treves, in

26 cases out of 100 on the *right* side,
and 36 cases out of 100 on the *left* side.

I have observed this in

49 cases out of 60 on the *right* side,
and 50 cases out of 60 on the *left* side;

showing, by taking the percentage,

81½ cases out of 100 on the *right* side,
and 83½ cases out of 100 on the *left* side.

In diagram 53 it will be seen that this condition of mesentery is much intensified, and that the intestine,

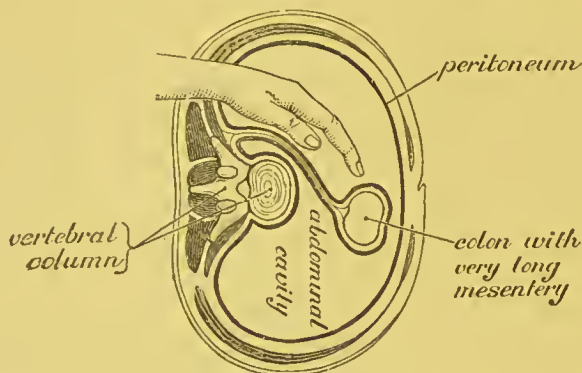


FIG. 53.

although it may rest in the loin, can so alter its position in the belly that, when operating on either side, it may lie on the side of the belly opposite to that in which the incision is made. It then, in the cases reported, was said and supposed to be impossible to find the colon from the lumbar region.

The last two conditions show how imperative it is to make sure that it is the *large* and not the small intestine, or even the stomach, which is going to be opened. At the risk of reiteration I must impress upon my readers the necessity of following the lines laid down for ascertaining that it is the large intestine which the operator is bringing to the loin. The presence of the appendices epiploicæ may also inform the surgeon that he has found the large intestine; but I do not consider these so important as the longitudinal bands, since the appendices may not always exist on the piece of large gut brought to view. Bearing in mind these anatomical facts, we must now consider how they may be dealt with successfully.

When about to operate the patient should be placed upon a hard couch in the prone position, with a slight inclination towards the right side, and a hard pillow is to be adjusted under the left side, so as to render the loin tense and prominent.

Having, by measurement, found the place at which to

make your incision, the strictures should be very carefully divided, and this should be done slowly and deliberately, waiting until bleeding be arrested, so that the anatomical relation of the parts may be duly recognised as the operation proceeds. I think it very desirable, though not absolutely necessary, that the fascia lumborum should be thoroughly made out, and if possible the edge of the quadratus lumborum muscle clearly exposed. If this is seen, a blunt-pointed bistoury should be passed beneath it and the muscle freely divided; when this is done the colon may be found; it is generally covered by fat, which may be mistaken for the gut, but this error will be soon discovered and is very easily rectified. It is of the utmost importance that the deeper incisions be kept the same length as the cut through the skin. If you do not attend to this rule, by the time you reach the lumbar fascia you will be working in a deep triangular hole, the apex of which is furthest from you; and it will be almost impossible to find the gut, even if you have come down upon the right spot. From personal experience, and the many operations I have seen performed by other surgeons, I am quite convinced that this is the secret of overcoming one of the difficulties of the operation.

In a case represented by diagram 51, after exposing a piece of intestine and failing to see a longitudinal band, I make a small incision into the peritoneum and convince myself, by finding a band, that it is the large intestine. The posterior part of the intestine is then taken hold of, drawn to the surface of the wound (the gut being pulled out as far as possible, so as to obtain a good spur), and carefully stitched with interrupted sutures all round to the edges of the skin, without perforating the mucous lining. The intestine may then be left unopened for some hours, or, if necessary, opened at once, provided that it is carefully attached at every point to the surrounding edges of the wound.

When a condition occurs as is represented in diagram 52, of course, in the first place, a sufficient search should be made for the gut about the subperitoneal tissue, under the assumption that it is in its normal position; but, should

Allingham
jun.'s
method of
operating
and ways
of finding
colon
Condition
I.

Condition
II.

this search fail, all the loose pieces of fat must be sponged out of the wound. The peritoneum, at the anterior angle of the wound, should be deliberately opened (and the edges clipped) just sufficiently to admit the index finger. This finger I pass towards the vertebræ, and then sweep it over the front of the kidney and quadratus lumborum, and the gut, although it be in the position represented in diagram 52, can be easily felt, hooked up, and the longitudinal bands seen. I then open the peritoneum to the extent of the wound, and introduce a sponge, with string attached, to keep the intestine out of the way, while the edges of the cut peritoneum are drawn up and sutured to the skin in the manner I adopt in inguinal colotomy. This entirely shuts off the cut abdominal muscles from the peritoneal cavity. Occasionally this stitching is not easy to do, either on account of the depth of the wound, or from the firm adherence of the peritoneum to the abdominal wall. The rest of the operation is completed in the usual way as described in Case 1. Here, if the mesentery be sufficiently long, a stitch may be passed through it, fixing it to the surface of the wound; thus a good spur is obtained.

Condition
III.

In dealing with the third position, as represented in diagram 53, after proceeding in the manner described in Cases 1 and 2 and failing to find the colon, I then enlarge the external wound forwards and backwards sufficiently to admit the hand. I then open the peritoneum to a corresponding extent, and having well cleaned the hand I introduce it into the abdomen. If it is the left colon that is to be operated on, I first pass the hand upwards towards the spleen and feel for the splenic flexure. Hereupon I draw the hand down the intestine until the piece opposite the wound is found and brought to the surface. Failing to find the intestine at its splenic bend, I pass the hand towards the rectum or across the abdomen (keeping the back of the hand in contact with the posterior aspect of the anterior abdominal wall) towards the hepatic flexure, and then slip the hand along the large intestine and draw a piece to the surface. Of course I take care to ascertain that this piece of intestine has the characteristic longitudinal bands. By

this method I have never experienced any difficulty in finding the colon. When the large intestine is found, command it with forceps that will not perforate the gut, and introduce a sponge to keep out the small intestines, which may prolapse while the wound is treated as follows. At the anterior and posterior parts (if the incision is six inches long) two inches in front and two behind should be dealt with as in an ordinary case of abdominal section, by passing the sutures through the skin and peritoneum, so as to bring the cut peritoneal edges in contact. But at the middle two inches of the wound, where the intestine is to be brought up to the surface, the peritoneum should be sutured to the skin as described in Case 2, and the operation completed in the same way. In this third condition a good spur can and should always be made, and when the gut is opened, its prominent edges ought to be cut away in the manner I suggested in the chapter on inguinal colotomy. I cannot help thinking that the above-described methods of treatment must have occurred to, and been used by, some surgeons when performing lumbar colotomy. I am much surprised, considering the frequency of the operation, that these details are so little known or, at any rate, practised. Yet, as far as I am aware, no account of these important details in finding or treating the large intestine from the loin, has up to now been brought before the profession. This silence on the subject has encouraged me to express my views, and I am confident that I shall never undertake this operation with any fear of failing to find the colon. I do not at all advocate lumbar colotomy when it is possible to perform the inguinal operation, for the lumbar is certainly the more difficult, the patient runs greater risks and recovers with less rapidity, and the after-results are not so satisfactory. Nevertheless for those surgeons who persist in the lumbar operation, and in cases where the obstruction is at the upper part of the sigmoid flexure or in the transverse colon, I hope that these explanations may assist in simplifying the supposed difficulties, and minimise the mistakes not unfrequently made.

Spur
should be
made

The after-treatment is generally very simple. Until

After-treat-
ment

the colon is opened, I treat the wound antiseptically; after that I usually apply a weak solution of carbolic acid or Condry's fluid to keep the part from getting dry and stiff and to deodorise, as the smell is sometimes very unpleasant.

When the bowels have been long confined before the operation, they are occasionally very difficult to get to act, and you may have to employ a scoop to remove the indurated faecal lumps: this being accomplished, enemata may be used to stimulate the colon to action, and relief will be obtained.

The patients are, as a rule, able to get about in three weeks from the time of the operation.

When up they may wear a well-fitting india-rubber pad to prevent the escape of wind and motion. I now have the pad made a little hollow and fill the concavity with cotton wool, which will absorb any slight moisture and keep the part dry. Sometimes an india-rubber plug is advantageous. Some of my patients prefer merely a pad of wool and a napkin over it, to any mechanical appliance. It is a great thing to cultivate the habit of getting the bowels to act the first thing in the morning; by this, incontinence and trouble during the day are best avoided.

I always recommend the use of plenty of cold water night and morning to the aperture; by which means the mucous membrane may be kept healthy and the probability of protrusion of the gut be lessened. This, however, if the patient should survive the operation for many months, is certain to occur to a greater or less extent; generally it can be returned by gentle pressure, but sometimes it can be replaced only by passing a softened bougie or thick tallow candle and carrying the bowel upwards.

Since I have made a small external incision I have not found the protrusion, as a rule, so troublesome, but still it will sometimes occur.

Importance
of spur

It is most important in lumbar (whenever it is possible) as well as in inguinal colotomy to make a good spur. Unless this is done faecal matter passes the opening in the loin and accumulates in the bowel below.

In a case of lumbar colotomy I had with Mr. Aiken, in which it was impossible to make a spur, this was one of the evils we had always to combat, and it rendered syringing out the rectum from the anus a matter of daily necessity, and added much to the patient's suffering. In such conditions the treatment must consist in keeping the rectum as clear of motion as possible by frequent washing out with warm water and some disinfectant, the particular one used being changed from time to time. I think, on the whole, carbolic acid is the worst you can employ, as even when extremely weak, it is liable to set up irritation in the cancerous growth in the bowel and a consequent increase of local pain. Salicylic acid and thymol I find good, but on the whole I prefer a solution of permanganate of potash, which is soothing to the part and readily destroys odour, and has no unpleasant attributes in itself. Even when a spur has been made surgeons are too apt to forget that when colotomy is performed the cancer is still left in the bowel, and attention must be directed to this. The discharge must be removed by careful syringing, and great relief may be given to the patient by injections of watery solutions of opium, and other sedatives *per anum*. The patients should live well, and I always order as much cod-liver oil as they can take without disturbing the stomach.

I have now thirty-five times performed lumbar colotomy for the relief of patients suffering from *cancer*, and twenty-nine times in cases of non-malignant disease—sixty-four cases in all. I do not see the necessity (the advantages of this operation being quite established) of relating my cases in detail. Most of them have at various times been published in hospital reports or the medical journals.

I ought, in leaving this important subject, to remind my readers that colotomy, whether inguinal or lumbar, is an operation for the *relief*, and not the cure, of this lamentable complaint. The time which the patient lives after the operation depends upon the nature of the disease. Both forms of colotomy, if carried out with all care and in the

manner described, should no longer be regarded as operations fraught with any special risk. The fatality formerly so dreaded as an almost immediate result of the operation arose from the uncommonly haphazard and unscientific way in which it was performed.

CHAPTER XXVIII.

LUPOID AND RODENT ULCERATION OF THE RECTUM.

As some of my critics took exception to the application of the word rodent to the disease I wish to describe, on consideration, and after further experience, I will divide it into two diseases—viz. rodent and lupoid ulceration. What I wish to do is to describe and define two species of ulcer of the rectum not often met with, which are totally distinct from simple ulcers.

A *lupoid* ulcer in its early stage is very difficult to distinguish from a syphilitic sore, and when it is situated just within the sphincter it may also readily be mistaken for the ordinary painful rectal ulcer. Lupoid ulcer in the rectum differs from the malady of the same name found on the face, in being, as a rule, most terribly painful; it also differs in another essential and important point—it is very much less curable.

Lupoid
ulcer

It is a happy thing that the disease is an uncommon one; in my own practice I have had only twelve decided cases, and I do not remember to have seen more than seventeen in all.

Lupoid ulcer may be distinguished from epithelioma by the following peculiarities: It does not invade neighbouring organs by infiltration, nor does it contaminate through the lymphatics; as far as I know, it never forms secondary deposits, and it produces no hardness. It is not, I am informed by microscopists, a disease of the follicles of the rectum.

Diagnosis

It differs from secondary or tertiary syphilitic ulceration in not inducing stricture of the rectum or any sub-mucous thickening; and this difference arises from its

being essentially a destructive ulceration, no long-continued effort at repair, which would cause permanent deposits, taking place.

The appearance of the ulcer is peculiar, and there need be but little hesitation in deciding what it is when once it is fairly established, but as I have said, in the earliest stage, the most experienced pathologist may be at fault.

The following, from my observations, I should say are the characteristics of the sore: the shape is usually irregular; I have only once seen it quite circular and symmetrical; this occurred in a case I shall presently relate. Its edges may be cleanly cut, but sometimes undermine the mucous membrane; it destroys completely as far as it extends; neither its edge nor its base is at all hard, and the mucous membrane around it is perfectly and, I may say, abruptly healthy. Its tendency is to spread superficially and to attack mucous membrane rather than skin, though in some of the cases I have observed, it invaded the border-land between mucous membrane and skin, and it may spread even to a considerable distance on the latter. It often, for a time, remains stationary, and I have noticed repair taking place very rapidly; but just as you think cicatrisation will be completed, all the granulations will melt away, like snow before the sun, and the ulcer will appear in its former shape and character in the course of a few hours.

The patients attacked by this disease, I think I may say, are nearly always of a markedly scrofulous diathesis.

Symptoms

Lupoid ulcer is generally most horribly painful (I have seen only one exception to this); the sufferer describes it as a constant, burning, gnawing sensation, as if a red-hot iron were applied to the part. Of course the pain is aggravated when the bowels act. Death takes place from exhaustion; the patient really appears to die from the never-ceasing suffering. Four of my cases had diarrhœa towards the termination of their lives, and this rapidly carried them off. Phthisis was the cause of death in many others.

Treatment

The treatment generally adopted for this disease has been the application of escharotics, such as nitric acid, chloride

of zinc, arsenite of copper, the actual cautery, &c. And if you burn the sore well out the patient usually has for a time much freedom from pain. One of my patients was comparatively comfortable for three months after the use of fuming nitric acid ; but of all escharotics I think the best are the chloride of zinc (used after Fell's plan) and the arsenite of copper, but even these, in my experience, will only delay the malady, and do not cure it. Internal remedies are advantageous, such as tonics, cod-liver oil, sedatives, &c., but they only lend a feeble help. Specifics are, in my opinion, worse than useless. In my latter cases I have scraped the sores thoroughly with a Volekman's spoon, with temporary benefit, but I am sorry to say the disease generally recurred in a few months. Here is a very typical case :

Dr. B——, æt. 32, a rather delicate-looking man, consulted me for a painful sore at the anus just at its margin, involving both skin and mucous membrane. He had been advised to have the lower end of the rectum excised, as the disease was supposed to be malignant in nature. Upon careful interrogation I found he had some years before had a slight attack of hæmoptysis : at once I knew from his symptoms, and the character of the ulcer, that it was lupoid in nature, and the opinion was confirmed by Mr. Jonathan Hutchinson. I suggested that the ulceration, which was extensive, should be scraped. This was done and all went on well, but just as his wounds had healed, he had another attack of hæmoptysis. Therefore I advised him to go abroad. And I have since heard from him to the effect that his rectal trouble has again recurred with all its distressing symptoms.

Cases

Here are some other typical cases :

Mrs. H——, æt. 30, a delicate-looking, nervous, excitable woman, of strumous diathesis. She has three children, the youngest being two years of age. She has never had any miscarriages or any serious illness prior to her present one ; but considers herself as delicate, and suffers much from sore-throat. Six months ago she was supposed to have fissure of the rectum, and an operation was performed upon her by a very skilful surgeon, but she did not get well. She was better for a time, but the pain has returned and she feels much as she did before being operated upon.

On examining her I found an inflamed-looking ulcer at the entrance to the anus ; it was partially external, about one-third being outside and the rest inside. It was three-quarters of an inch long by about half an inch wide ; it was quite superficial, and was not at all hard. The sphincter ani was spasmodically contracted ; she suffered a good deal of aching pain, worse after action, and the bowels were very confined.

There was no polypus. I decided to divide the sphincter freely. My friends Dr. Crosby and Mr. Shillitoe, who assisted me at the operation, were strongly of opinion that the sore was syphilitic. I have mentioned that she had sore-throat, but she had no rash, and there was no history of syphilis. The uterus was found to be quite healthy. This lady's husband had not been a steady man, and therefore it was by no means certain that she had not been infected; so it was agreed that she should take the bichloride of mercury with tonics and cod-liver oil.

The operation at once relieved the pain, and she went on very satisfactorily. The wound looked healthy, granulated freely, and I saw no reason why she should not do well; but after about five weeks the sore became stationary, and refused to answer to stimulating lotions; moreover, she began to suffer from her old pain, which she always described as being like 'a red-hot iron applied to the part.' I may say that the wound had healed up to nearly the dimensions it was when I operated. I had now pretty well made up my mind as to the character of the ulcer, so, when at the end of three months I found it still no better, but rather increasing in size, I determined to cleanly excise the whole sore. Again assisted by the same gentlemen, I freely removed the ulcer, cutting wide of it, and removing the base fully down to the cellular tissue, taking, of course, nearly all of one half of the external sphincter muscle away. After this I well swabbed the wound with a strong solution of chloride of zinc. Both Dr. Crosby and Mr. Shillitoe agreed that it was impossible by the incision I had made not to have removed all the diseased parts. After this operation for three months the patient went on well, and the sore healed up to nearly its original size, when it again halted, and the pain returned as badly as ever. My colleague, Mr. Gowland, now saw her in consultation with me, and was much inclined to give a favourable prognosis, but, on taking the case in hand himself, he soon found that no remedy he had knowledge of was of any avail. This lady afterwards consulted many eminent surgeons, but without deriving any benefit, and she died in about three years from the commencement of her illness, under the care of the late Mr. De Morgan, in the Harley Street Surgical Home for Ladies.

A girl, æt. 17, who came from the country, was taken into St. Mark's Hospital under my care in the summer of 1867. She was a ruddy-complexioned, heavy, rather stupid, strumous-looking person, and we had a good deal of difficulty in extracting any information from her. She had a sore just at the verge of the anus, towards the perineum, and it had burrowed through into the vagina, close to the fourchette. She did not know how long it had existed. She professed to be very innocent, and strongly denied any possibility of syphilis, but she had no appearance of a hymen, and her vagina was capacious. She had a superficially ulcerated throat, and some spots of a suspicious character on her head and on her body. She had no enlarged glands in her

groins ; she complained of a great deal of pain in the sore. I made but little doubt about its being syphilitic, and prescribed an antisymphilitic treatment ; finding no improvement take place, I passed a director through the sinus and laid it open—still it did not heal. Mr. James Lane, who was then one of my colleagues, saw it and agreed with me as to its being a syphilitic sore, so I persevered with the remedies for some time longer, but it did not heal, and I began to have my suspicions that I had made an incorrect diagnosis. I then treated the ulcer freely with strong nitric acid, and for a time it greatly improved, and she suffered scarcely any pain ; and then all of a sudden, without any apparent cause, the sore spread and extended up the bowel, as well as the vagina, removing the tissues rather deeply. She rapidly lost flesh, became very weak, and had almost constant pain, which was only slightly mitigated by hypodermic injections of morphia. I kept her in the hospital for a long while, but finally, at her own request, I sent her home, and I was informed that she did not live very long.

A man, æt. 42, of delicate and feeble appearance, was an out-patient of mine at St. Mark's. He had been ill for about twelve months, and had been in several hospitals. He had ulceration of the rectum, superficial but extensive ; dorsally it extended up the bowel for quite two inches, and laterally, on both sides, for about an inch ; the skin externally was slightly involved ; there was no constriction of the bowel, and no deposits ; the sore had a very dry and red appearance, it discharged a sanious fluid, but no pus. He suffered most horribly, scarcely ever had a moment's ease, and he took all the morphia he could get. He would not come into the hospital to have anything done ; all he prayed for was something to relieve his pain. I taught him to use the hypodermic syringe upon himself, and he obtained some ease from that. When he became too weak to come to the hospital I visited him at home, wishing much to be allowed to examine the body after death, but when that event occurred his friends would not accede to my request. He died of diarrhœa ; there was no evidence of any secondary deposits having taken place.

John S——, a gunner in the Royal Artillery, æt. 31, was sent to me at St. Mark's, January, 1872, from the hospital at Shoeburyness. The history is that he has been in India for six years, and returned to England twelve months back. While in India he had diarrhœa, fever, and small-pox, but never dysentery, always enjoyed good health ; he is a steady man, single, and of very good character in the army. He cannot quite assign any date to his rectal affection, but had piles in India and some operation was performed for their cure ; after this he was but little troubled until a few months before he returned to this country. He has been six months in the military hospital without any improvement in his condition. He has never had syphilis, but has had gonorrhœa.

He is a middle-sized, slight, spare man, much marked by small-pox ;

aspect not very unhealthy. An examination of the chest detected dulness at the upper part of the right lung; he is rather subject to cough and there is phthisis in his family, but he has never suffered from hæmoptysis or inflammation of the lungs. On separating the buttocks a perfectly symmetrical, nearly circular sore is seen extending all round the anus; it is as large as a five-shilling piece, very superficial, with a well-defined edge; the sore discharges but little pus, is remarkably clean and red, and is covered by rather largish granulations. The anus is more patulous than natural, and the ulceration is found to extend up the bowel for fully an inch; above this the mucous membrane is quite healthy. There is not the slightest induration about the sore. The sphincter muscle is very relaxed and powerless, and the patient states that when the motions are loose he has but little control over them. There is no evidence of syphilis; he has no rash, sore-throat, or enlarged glands. He does not suffer severe pain, but there is a constant burning in the part, which is aggravated by any movement and by the action of the bowels. His appetite is fair; he sleeps, but his nights are disturbed not actually by acute pain, but by uneasiness and stiffness in the sore. He has been gradually losing flesh and strength.

Many eminent surgeons to whom I showed this patient directly pronounced the sore to be syphilitic, but a further investigation induced them to withdraw that opinion.

The treatment at first was iodide of potassium with bark and cod-liver oil, the application of stimulant and sedative lotions to the sore. After a time, no benefit resulting, the iodide was omitted and Donovan's solution was administered; this also seemed to be of no avail.

I destroyed a portion of the ulcer with the fuming nitric acid, but no improvement took place; therefore I did not apply any escharotic to the whole sore.

This man remained in the hospital for about four months, and despite all that was done for him he got gradually worse. The pain was mitigated by sedatives, but it became more severe and almost constant; he lost flesh and strength, and the ulcer increased in size until when he left it was just three inches in diameter, and deeper than at first; it also had much extended up the rectum. He went to the Herbert Hospital at Woolwich, and I heard some months afterwards from the gentleman under whose care he was that he died. No post-mortem examination was made.

I am very strongly of opinion that I can do much more

for the cure of the disease now than I could when the above-mentioned patients came under my care. My treatment would be, if possible, very free scraping of the whole of the diseased portion of the bowel.

Rodent ulcer, no doubt, attacks the rectum and anus, but yet may be extremely difficult sometimes to distinguish from lupoid ulceration. I have seen, as far as I can remember, about four cases of this condition. Rodent

It differs from the lupoid in that the patients attacked are older, rarely under fifty years of age. There are no signs of struma or phthisis. The patients look ruddy and well.

The local characteristics of the disease may greatly resemble those of lupoid ulcers, but at the same time the bases of the ulcer are generally harder, and the edges, although not heaped up like cancerous ulcers, may be hard and well-defined. At first they may be superficial, but later may extend deeply into the tissues. The surface is very red and mostly dry; there is scarcely ever any amount of discharge. Diagnosis

I am sure the only treatment is exceedingly free excision. Should a case come to me, I should, with my present knowledge, perform extirpation of the lower part of the rectum. The only patient I have had do well was a Greek gentleman, who came to me in 1875, and from him I removed two-thirds of the circumference of the rectum dorsally where a well-marked rodent ulcer existed. He had consulted many eminent men, and all kinds of treatment had been tried internally and externally without benefit. The sore had existed twelve months at least when I first saw him. I have excised rodent ulcers before, but never so freely, and I now think my operations had not been radical enough. In the above instance I removed all the coats of the rectum, and even fat, and cut at least an inch all round away from the sore. When I last heard of the patient, four years after the operation, there had been no return of the sore, and the patient's general health was very good. In other cases where I performed free excision, there has been no return of the growth. Treatment

I will relate another case :

Mr. C——, æt. 54, consulted me for an ulcer with fistula, from which he had suffered for some years. It was very extensive, occupying many inches of the buttock, and spreading up into the rectum. It was hard, red, and secreted little pus.

As he had at times sugar in his urine, I did not like to perform any very severe operation upon him, but thought that by laying open the fistulous orifice and thoroughly scraping the ulcer, he might derive benefit. This was accordingly done. After some weeks the wound healed, but very sluggishly and at times breaking down in the newly healed parts. After he had been under my care about two months, and as the wound seemed to stand still, I advised him to go into the country, hoping the change of air might benefit him. I hear that the wound is still unhealed, and very much fear that the disease will soon return.

If this patient had not been troubled by diabetic symptoms, or even had the ulceration been less extensive, I am sure excision would have been the very best form of treatment for his case.

CHAPTER XXIX.

VILLOUS TUMOUR OF THE RECTUM.

THIS is a rare but interesting disease. Mr. Quain, in his work, gives the details of the only two cases that had fallen under his observation. I have now seen eighteen examples of this growth—eleven in my own practice, three in St. Mark's Hospital under the care of my late colleague, Mr. Gowlland, one in the practice of my colleague, Mr. Alfred Cooper, and three under Mr. Goodsall's care; added to these, I only find reported, two by Mr. Symes, one each by Messrs. Cripps, Gosselin, Van Buren, and Bryant—twenty-four in all.

Rarity of
the disease

The tumour consists of a lobulated spongy mass, with long villus-like groups studding its surface; it resembles exactly—though the villi are much larger—the growth of the same name found in the bladder. Usually it is attached to the bowel by a stem, broad rather than round, and this appears to me to be more like an elongation or dragging down of the mucous membrane and sub-mucous tissue than a development. The flattened peduncle may be two or three inches in length, or it may be short; in two of my patients it was quite short—indeed, the tumour itself came outside, but grew directly from the surface of the bowel.

Description

Although some of these tumours are reported to have had a pedicle, the majority have only a broad, thick base, and by their weight pulling the bowel down give rise to the appearance of a pedicle.

In cases where the growth arises from the perineal surface, as a practical point worth remembering, I should say it is by no means impossible that a pouch of peritoneum may be dragged down into the pedicle, and in such a case,

if the ligatures were applied close to the bowel, peritoneum might be tied up with it.

In most cases these tumours grow some way up the bowel from the posterior wall. When they spring from the anterior wall, before ligaturing the base, care should be taken lest a piece of small intestine has slipped between the folded gut.

Symptoms

The leading symptoms may be stated to be the descent of a tumour, usually on the bowels acting or even when the patient walks, and the very abundant discharge of a glairy mucus resembling the white of an unboiled egg. This latter, in all my cases and in Mr. Gowland's also, was the most prominent symptom; even when the tumour was not protruded from the anus this discharge frequently ran away from the patient without his having control over the escape; it is evidently a very great exaggeration of the normal secretion of the mucous membrane of the rectum by the villi which grow from it and form the tumour.

Blood in some of my cases was lost in quantity, two of my patients being quite blanched from that cause, but I would observe that even the loss of the mucus is a severe drain upon the constitution, and shows itself in the aspect of the patient. Exceedingly large arteries may usually be felt entering the broad peduncle of the growth. It does not appear that pain usually attends this disease, only discomfort arising from the protrusion and constant discharge.

Therefore the most important characteristics of these growths are: the large quantity of mucus discharged, their soft, velvety, villous feel, and a want of the solidity and firmness which is felt in large polypi.

All the patients except three, whose cases have been reported, were above fifty years of age, many of them being quite old people.

After what has been said it is obvious that these villous tumours differ from polypi in the fact that the latter occur chiefly in the young, never attain such a large size, and are nearly always well pedunculated. Moreover, if the polypus is of the soft variety, it has a smooth and even surface; if of the hard kind its surface is nodular.

When the second edition of this work was published, from what I had seen and heard I was of opinion that these tumours when removed did not return. I am obliged now to modify that opinion. I am also compelled to express the opinion that they may become malignant, having now seen three cases in which epithelioma replaced the villous growth. From a case I have had I think it very probable that these growths sometimes shed themselves, and the patient may remain well after this for a considerable time.

Question of
malignancy

Dr. D——, a physician, came to me in September of 1875. He is sixty years of age, a small and spare man, with an aspect of countenance suggesting malignant disease. He is married and has a family. He says that for quite two years and a-half he has suffered from piles, something occasionally protruding from the anus on going to stool. About two years since he began to lose blood, and a considerable quantity of glairy mucus was discharged from the bowel. The tumour, for it was single, grew rapidly, and always came down at the closet, and occasionally on exertion. It bled profusely, often half a pint, at one action of the bowel, and he had fainted in the closet from loss of blood. On being returned inside the sphincters the bleeding ceased. Latterly—*i.e.* within the last few months—he had much difficulty in returning it owing to its large size, as it gradually became as large as a man's fist. It had, he said, a soft spongy feel, and the blood could be squeezed out of it by the hand. Three weeks back he found the tumour began to disintegrate on his handling it, and now it had so decreased that he could readily return it into the bowel. His health had been very materially failing; he was weak, often giddy, with noises in his head and dimness of vision.

Cases

I gave him an enema, and on going to the closet he brought outside the anus a very vascular tumour looking like a sponge, about the size of a large hen's egg, and bleeding profusely, as it was tightly girt about by the sphincter. On examining the bowel I found the tumour was connected with the mucous membrane by a short, thick, tough peduncle, which was quite smooth. When the growth was with some difficulty returned into the bowel, you could scarcely realise the fact that so large a tumour existed, only the pedicle could be felt as something hard; it was attached about an inch and a-half up the rectum on the left side and rather towards the dorsum. The peduncle was about the size of the forefinger in thickness. On September 22, assisted by Mr. Baly, then the resident surgeon at St. Mark's Hospital, the tumour being got well down, I passed a thick double ligature, by means of a rectangular needle, through the pedicle, close to its attachment to the rectum, and tied it tightly in halves. I felt a large vessel pulsating

forcibly in the pedicle, and, of course, avoided wounding this with the needle. The peduncle was so short that I did not dare to cut off the tumour, fearing if I did so the ligatures might slip. The growth was lobulated and distinctly villous.

The patient made an excellent recovery, and speedily gained health and strength. In about twelve months after this operation Dr. D—— again came to me and said the growth had returned. On examination I found he was right, but the tumour was small. This time there was absolutely no peduncle, and it was broad at the base and felt hard at its attachment to the rectum. This case led me to doubt the innocent character of villous tumour. I agreed to remove the growth again, and the patient being placed under ether I was able to dilate the sphincters, and, partly by knife and partly by ligature, to extirpate the whole very thoroughly. After this the patient recovered, and there had been no return up to a very recent date when I saw this gentleman. Seen again in November, 1881. Epithelioma had developed around the rectum, extending from the site of the old growth. He died within a year from that date.

A young man, pale and thin, was sent to me at St. Mark's Hospital in April of 1877 by Dr. Way, of Southsea. He said he had piles, that they came down at the closet and on walking about; they did not bleed much, but he lost quantities of watery discharge which frequently ran away and saturated his trousers. On administering an enema he strained down a large tumour the size of a hen's egg with a peduncle broad and thin; it was ligatured in four portions and cut off. He made a good recovery, and left the hospital in three weeks quite well. On examining the bowel after the ligatures came away no trace of hardness or peduncle could be felt; the tumour was situated at the dorsal surface of the bowel and to the right side.

J. B——, æt. 52, was admitted into St. Mark's Hospital under my care on April 22, 1878. He was in appearance the colour of old wax, was very feeble, and looked prematurely aged. His heart's action was intermittent, and a soft blowing sound could be heard. He said that he had suffered from what he considered to be piles for some years, but lately he had a very large mass come outside. He lost quantities of blood, and there was also a discharge from the bowel 'like gum and water.' He had a tendency to diarrhoea; great difficulty was experienced in returning the growth, which bled all the while it was protruded. On examining the tumour when down it was found to be quite as large as a man's fist, spongy, lobulated, with the villi greatly hypertrophied; the growth was so vascular that you could scarcely touch it without arterial blood spurting out. On passing the finger into the rectum the tumour was found to grow all round the bowel, and there was absolutely no stem; all attempts therefore to deal with it by ligature in the ordinary way could not be successful. As an operation was necessary to save the man's life, I determined to remove the tumour,

and I thought I could succeed by ligature and strong harelip pins. With much trouble and great loss of blood I managed to strangulate the whole mass. When I perforated the stump of the growth with a needle threaded with a double ligature and tied each way, the bleeding was tremendous at the point where the segments were drawn apart; therefore I could find no way to strangulate and arrest hæmorrhage save by the harelip needles and the figuro-of-eight ligature. The actual cautery and perchloride of iron had no power over the bleeding of this huge cauliflower-looking growth. Of course it had to be left protruding from the anus.

This patient was exceedingly exhausted, not being in a condition to support such a sudden loss of a large quantity of blood. For a little while I was in some anxiety about the termination of the case, but he rallied wonderfully, and at the end of a few days I thought him safe if no secondary hæmorrhage took place; this fortunately did not occur. The decomposing mass was kept quite sweet by charcoal powder, and he got on well; the parts separated without any bleeding whatever, and left a large granulating sore. Just as we thought all was right he was attacked with diarrhœa very difficult of control, in fact, nothing was of service but a powder consisting of bismuth, soda, charcoal, and opium, which eventually cured him. He was not sufficiently recovered to leave the hospital until two months after the operation. I have seen this patient frequently since he was discharged, and no return of the tumour had taken place, but high up in the rectum I find some small nodules; whether they would develop into anything serious I could not for some time judge, but I watched him with interest and some anxiety. After the operation his general health became quite restored and his appearance wonderfully improved.

Epithelioma afterwards developed, and the patient died May 1881.

A patient from whom I removed a growth was a Mr. B——, aged 73, who had always had good health.

About three years before, on going to stool, he noticed that he had a discharge of glairy mucus from the rectum, a tumour occasionally came down, and his motions were sometimes streaked with blood; this he attributed to a small pile. A few months after the commencement of his illness, he became pale and complained of giddiness, feeble-

ness, and a sensation of numbness down the legs; this continued for some time, and in February 1880, feeling very ill, he consulted a surgeon, who told him he had very bad piles, and thought, at his age, it was not advisable to operate on them. At this time he was constantly going to stool, and losing great quantities of mucus, which ran from him involuntarily. His bowels never acted without a purgative, and he had a bearing-down pain and a sense of fulness in the rectum.

In August of the same year he lost blood in some quantities, and had done so at intervals even since, the mucous discharge being very profuse.

When seen, early in November, he was pale, weary, and very feeble; complaining of deafness, giddiness, and restlessness at night.

On introducing the finger into the rectum, mucus was freely discharged, and about three to four inches up the bowel a large soft movable tumour could be felt occupying the whole bowel, being attached to the posterior and right lateral walls, and evidently dragging the wall of the bowel down by its weight. There was no well-marked pedicle to be felt, the tumour growing directly from the wall of the rectum, and extending over an area of some inches.

On November 17, 1886, I operated, Mr. Shadwell, of Acton, who kindly sent the patient to me, being present. The sphincters were forcibly dilated, and then, with the first finger of the left hand and a vulsellum, after some difficulty, I succeeded in bringing the tumour, which was about the size of a fetal skull, outside the anus. Then it was seen that the tumour had no real pedicle, that part being represented by the wall of the bowel which was pulled down. The base was four inches in width, and one in thickness. Taking care that there was no gut in the folded bowel, I ligatured the base by passing a needle with a double thread through and through the base, and tying it in segments; the growth was then cut away, and the stump, which was quite soft and healthy, returned. As soon as the growth was removed, it shrank at once to one-third its original size. The patient went on favourably, the ligatures soon separating. But unfortunately he got an attack of acute bronchitis, of which he died.

Dr. Delapine very kindly examined a portion of the growth for me, and made an excellent diagram, which I think thoroughly explained the microscopical aspect of the growth, and showed that the tumour was of an innocent nature. The tumour, which is a very fine specimen, is in the museum of St. George's Hospital.

Shedding
themselves

I have mentioned my belief that villous tumours at times shed themselves, and I will relate the case which supports my view:

Miss H—, a maiden lady, of fifty or more years of age, was kindly sent to me by Dr. Morton, of Kilburn. She was a tall, spare woman, with a rather worn expression of face. Her history was that

about twenty years ago she had suffered from losses of blood from the rectum, and also from a discharge which she described as like thin starch. This fluid flowed away at times in abundance. At this time her health was much broken, she had pains in her back and inability to take exercise; nothing came down on the bowels acting. Her bowels were very constipated and she took some strong aperient pills, the result being that when the bowels acted 'a large mass of flesh came away, and the bleeding was so severe that she fainted.' After this she had no more bleeding or watery discharge, and quickly recovered her health. After being well until about twelve to fifteen months ago, to her horror the bleeding and discharge recommenced. She consulted medical men, who said her case was one of piles, and various treatment was adopted without any effect. She told me that portions of a fleshy soft character came away sometimes at stool. She had straining, pains, and general debility. She was ordered to take charcoal, bismuth, and soda powders three times in the day, and use an injection of rhatany. I requested her to send me a specimen of what she passed when straining. My examination detected nothing but a relaxed voluminous mucous membrane, which came rather down into the rectum, but neither by finger nor speculum could I detect any disease. In a few days after the consultation the patient sent me some of the discharge, and I found remarkably good specimens of villous growth, some pieces being as large as a hazel-nut. I saw this lady once more, and used all means to see and feel the growth, but could not get at it. I was quite sure of my diagnosis, and could only tell her I hoped in time the stem of the growth would increase in length and come down within reach, so that one could remove the disease. A few months after this I had a letter informing me that the charcoal had caused a stoppage in the bowels, for which large doses of aperients, castor-oil among them, had been used to obtain relief, and that when action was at length obtained, a mass came away not so large as, but much resembling the one she had passed years ago, and that she felt much relieved. She sent me a portion of the specimen, and that sure enough was a villous growth. Whether there will be any further return remains to be seen.

The case is a very interesting one, and leads me to think that villous growths may break away from the bowel more often than is supposed, and I remember some very puzzling cases I have seen which were possibly similar to the one I have related.

CHAPTER XXX.

MISCELLANEOUS.

IN this my concluding chapter I intend to treat briefly of one or two forms of disease of the rectum, which are of somewhat rare occurrence.

REMOVAL OF COCCYX.

Removal of
coccyx

I have seen many female patients suffering from what has been considered neuralgic pain in the rectum, but really the pain was most distinctly referable to the sacro-coccygeal joint. These are most intractable cases, and on four occasions I have removed the coccyx in the hope of curing the disease which was wearing out the mind and body of the patients.

My first case was a married woman *æt.* 54, with seven children. She had for years been complaining of pain in the rectum and at the end of the spine, which rendered her quite incapable of performing her household duties. She could not sit down except on a ring-shaped air-cushion, and when from home she always wore under her dress a couple of pads to catch the buttocks so that the end of the spine should not touch anything.

If the bowels were confined she had great pain before and at the time of their acting rather than afterwards. If she stooped and suddenly raised herself, the pain 'was like a knife going through the very bottom of her back.' She could walk but a short distance, and going upstairs was a very painful exertion to her.

On examining the rectum no fissure or ulcer was discoverable, but when the finger was pressed on the coccyx

so as to move it—and it moved exceedingly freely and easily—she complained most bitterly.

As nothing I could do seemed to benefit her, and she had been under many eminent physicians and surgeons without getting better, I determined to remove the coccygeal bone at the joint; and this I did. Making a straight vertical incision along the bone, and taking care not to wound the rectum, I dissected it out and disarticulated it without any difficulty. There did not appear to be any appreciable pathological change in the bone. The wound healed rapidly, and I was much pleased to find that the patient was cured. She was able, nine months after the operation, to sit down in comfort, and to walk about without any pain.

Encouraged by this success I operated some years back in a very similar case at St. Mark's Hospital. The patient was an unmarried woman 32 years of age, who had been for years suffering from pains in the rectum and end of the spine. Her symptoms were almost precisely like those I have described, and there was no lesion in the bowel, but she had an intussusception, not to any great extent, of the rectum. This made me less sanguine of success, but as the pain was undoubtedly sacro-coccygeal I removed the bone and the wound healed well. Although she did not become perfectly free from pain she could sit down in comfort, which she could not do at all before, and in many other respects she was improved.

Some years ago I removed the coccygeal bone from a gentleman who had sustained a most painful injury by falling on the side of a rowing boat from which he was getting out. He had suffered much afterwards, and a fistula formed in the bowel. This had been opened, but he was no better—when he began to get about, the pain returning in all its previous acuteness. On carefully examining him I found that a sinus ran close to the coccyx, and bare bone could be detected with the probe, so no doubt a periosteal abscess had formed. Believing the bone to be diseased I requested him to allow me to remove it, and he consented. When the bone was excised there was not any

necrosis evident, but it was unusually dense, so I concluded inflammation had been present. I was rather in doubt about the case doing well, but a perfect recovery was the result, all pain being gone before the wound had healed.

I by no means intend to advocate the frequent removal of the coccyx for pains in the neighbourhood of that bone, yet I think in some cases, where all other means have been exhausted, and there is good evidence that the pain is induced by every movement of the bone, its excision is called for and may be the means of curing an otherwise incurable disease. I do not see any particular danger in the operation, and that the coccyx may be dispensed with without any evil resulting is, I think, certain.

Inflamma-
tion

INFLAMMATION OF THE RECTUM may occur in both a chronic and acute form. The chronic variety obtains in old people. The symptoms are a sensation of heat and fulness in the rectum, frequent desire to go to stool, and great tenesmus; there may be a discharge of blood and mucus. With these symptoms you would suspect impaction, but a digital examination will settle that point. Injections of starch and opium are very beneficial, but I think in the aged the most efficient medicines are turpentine, aloes, confection of black pepper and copaiba. I usually order frequent and small doses of Barbadoes aloes; it acts as a stimulant to the rectum, induces a healthy action, and very soon the disorder subsides. Hamamelis is another useful remedy; it is, in fact, rapidly curative in some cases. It may be used as an injection and also administered by the mouth.

Acute inflammation of the rectum resembles dysentery in its symptoms, but it is distinguished from it by the absence of abdominal pain or tenderness and severe constitutional disturbance; the pain is generally confined to the sacrum and perineum; the bladder is often sympathetically affected, and there is not infrequently difficulty in passing water.

The most effective treatment would be leeches around

the anus, hot baths, injections of water in small quantity as hot as can be borne; to this may be added a drachm of Battley's sedative. A hot bath followed by a hypodermic injection of morphia is likely to benefit. The patient should keep the recumbent position, take very light unstimulating nourishment, and no irritating purges should be given. If it be necessary to relieve the bowel of its contents a flask of warm olive-oil as an enema is the best that can be employed. I have seen very few such cases in this country, but they are not so uncommon in hot climates.

RARE GROWTHS IN THE RECTUM.

There are several of these growths, such as dermoid-cyst, angiomatica, lipomatica, &c.; but as in this region they are surgical curiosities, I do not think they deserve a place in this essentially practical book.

Rare
growths



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